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U.S. Department
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Research and
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Administration

National Transportation Statistics

Annual Report

June 1985

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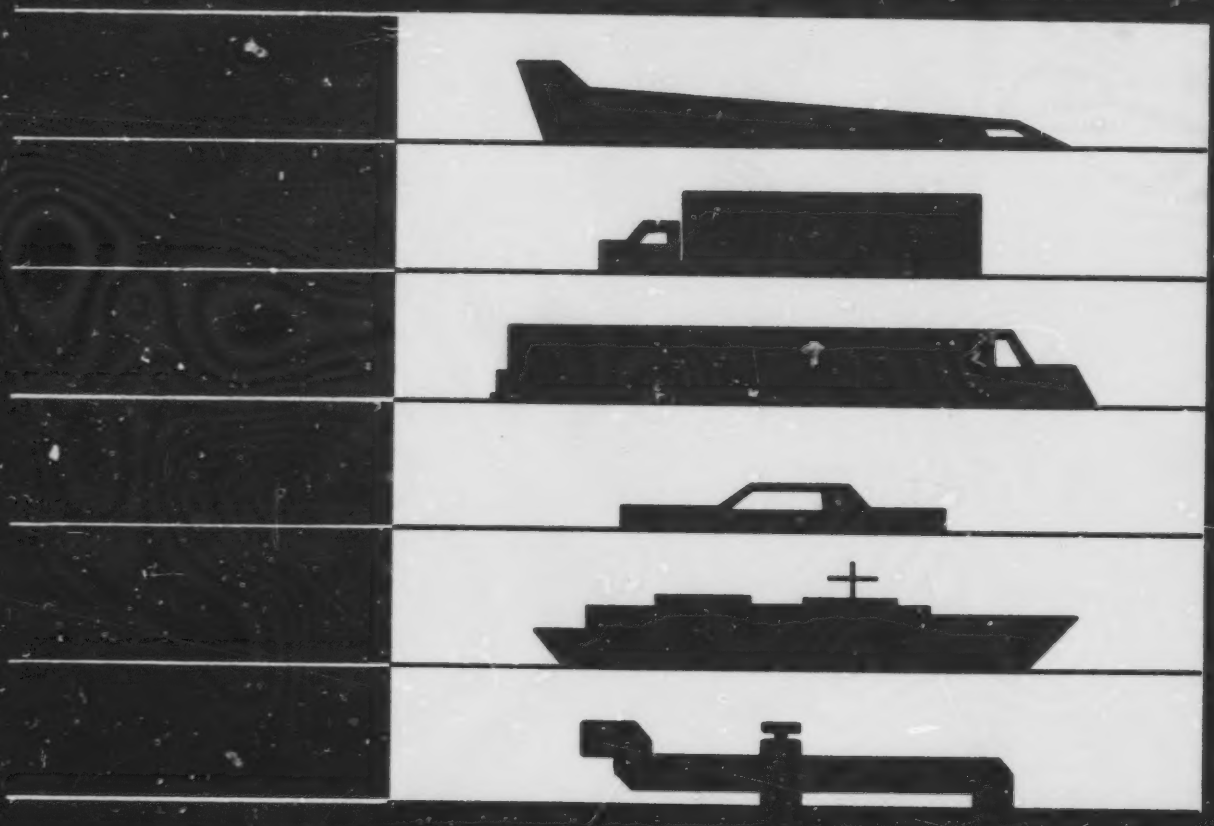

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U.S. Department
of Transportation

**Research and
Special Programs
Administration**

NATIONAL TRANSPORTATION STATISTICS

Annual Report, 1985

Secretary of Transportation

Elizabeth H. Dole

Research and Special Programs Administrator

M. Cynthia Douglass

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16. Abstract

This report is a summary of selected national transportation statistics from a wide variety of government and private sources. Featured in the report are cost, inventory, and performance data describing the passenger and cargo operations of the following modes: air carrier, general aviation, automobile, bus, truck, local transit, rail, water, oil pipeline, and natural gas pipeline. The report illustrates basic descriptors of U.S. transportation, such as operating revenues and expenses, number of vehicles and employees, vehicle miles and passenger miles, etc. A supplementary section includes Transportation and the Economy and Energy in Transportation. Energy in Transportation is divided into four parts: Energy Consumption, Energy Intensiveness, Energy Transport, and Energy Supply and Demand. Also included are the operating costs of automobiles of different sizes. In this edition, the selected data cover the period 1973 through 1983/1984.

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INTRODUCTION

Developing and maintaining vital transportation statistics is one of the missions of the U.S. Department of Transportation's Transportation Systems Center (TSC). This publication is produced to support this mission and is intended to disseminate national transportation and energy statistics to the transportation and energy communities.

The compilation of statistical materials is usually a tedious and time consuming process. Consequently, reliable sources often represent a 1-2 years time lag. This report incorporates the latest available information at the time of publication.

While most of these statistics are available from various sources such as government agencies and trade associations, they are presented here in one convenient and comprehensive report. Particular attention has been taken in documenting the sources of all data. These sources are noted either on the same page as the data or in Appendix A -- Source Information.

The reader is urged to utilize the Source Information, and those who may want additional information or an explanation regarding the data in this publication, should check with the source(s).

Four different formats are used -- 1) Tree Displays, 2) Modal Profiles, 3) Performance Indicators, and 4) Transportation Trends -- to spotlight various aspects of the major transportation modes. In addition, two supplemental data sections detail the role of transportation in the economy and the relation of energy to transportation. Time series transportation statistics are presented for the period 1973-1983/1984. Energy consumption and supply-and-demand data cover the same period and extend back to 1955.

TREE DISPLAYS

Figure 1 illustrates the interrelations of the various modes via a tree display. This format presents the relationship between and within each transportation mode for the following areas:

Expenditures and Revenues
Vehicle-Miles
Passenger-Miles
Revenue Ton-Miles of Freight
Number of Vehicles
Number of Fatalities
Energy Consumed

Because of the variety of data sources, the totals may not always equal the sums of the subordinate data. Sources for each statistic may be found by tracing its parenthetical reference number to Appendix A. Where data are not available or not applicable, the block contains the letters "n/a".

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MODAL PROFILES

The Modal Profiles present cost, inventory, and performance data comparisons for 1973, 1982, and 1983. In some cases, not all of the types of data in these profiles are available for every mode, nor are they always applicable.

The following list indicates the type of data usually included in each group:

I. Cost
   - A. Expenditures (private modes)
   - B. Revenues (for-hire modes)
   - C. Operating expenses
   - D. Federal expenditures
   - E. State and local expenditures

II. Inventory
   - A. Number of companies
   - B. Number of vehicles
   - C. Number of employees
   - D. Mileage

III. Performance
   - A. Vehicle-miles
   - B. Passenger-miles
   - C. Number of passengers carried
   - D. Ton-miles
   - E. Tons of freight hauled
   - F. Average passenger trip length
   - G. Average length of freight haul
   - H. Average speed
   - I. Number of fatalities
   - J. Number of fatal accidents
   - K. Total number of accidents
   - L. Fatality and accident rates

SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS

Selected modal statistics that are calculated on a per capita, per vehicle, or per mile basis are presented here for 1973, 1982, and 1983.

TRANSPORTATION TRENDS

This section includes transportation statistics from 1973 through 1983/84, using tables and graphs to indicate shifts in cost, inventory, and performance data.

SUPPLEMENTARY DATA

The first of the two supplementary sections, "Transportation and the Economy," uses tabular and graphic statistics for the years 1973-1983 from the U.S. Department of Commerce report, "Survey of Current Business", to show transportation's function in the economy and vice versa. The second section, "Energy in Transportation," deals with Energy Consumption, Energy Intensiveness, Energy Transport, and Energy Supply and Demand for the years 1973-1983 and 1984 when available.

APPENDIX A - SOURCE INFORMATION

Appendix A is a detailed list of data sources used in this publication. The parenthetical numbers in Figures 2 through 8 indicate the data source in the appendix. The data sources are also shown for Tables 1 through 10, 12, 19 through 25, 27 and 30, as well as the Modal Profiles.

APPENDIX B - GLOSSARY

In order to clarify definitions, a glossary has been assembled and divided according to transportation modes. Existing glossaries such as in the Federal Aviation Administration's "Statistical Handbook of Aviation" were used in assembling this glossary. The lack of comparable glossaries in other statistical handbooks, however, makes it difficult to prepare a complete dictionary.

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TREE DISPLAYS
1983

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Figure 1. Modal Structure

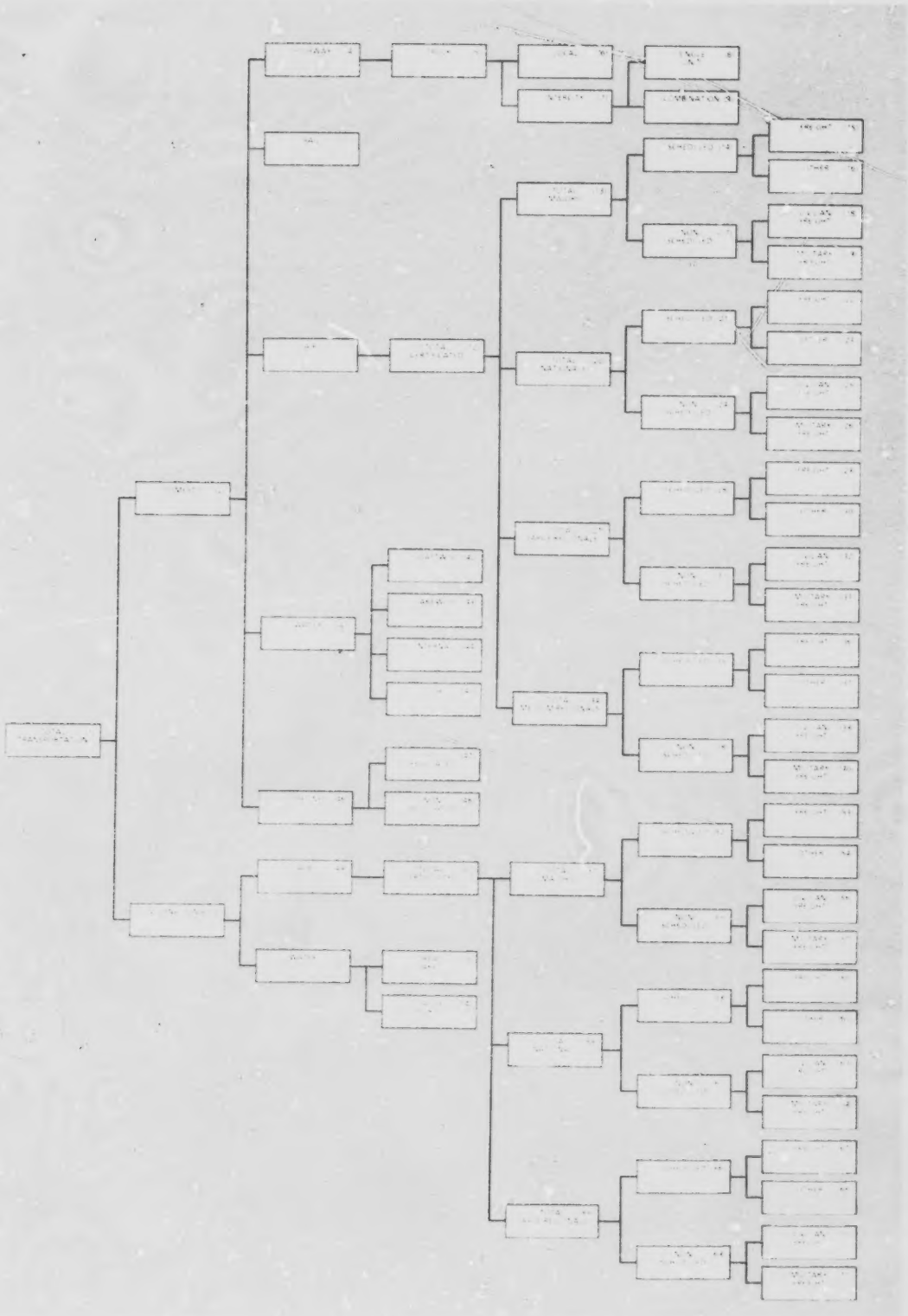

Figure 2. Expenditures and Revenues ($ millions) - 1983

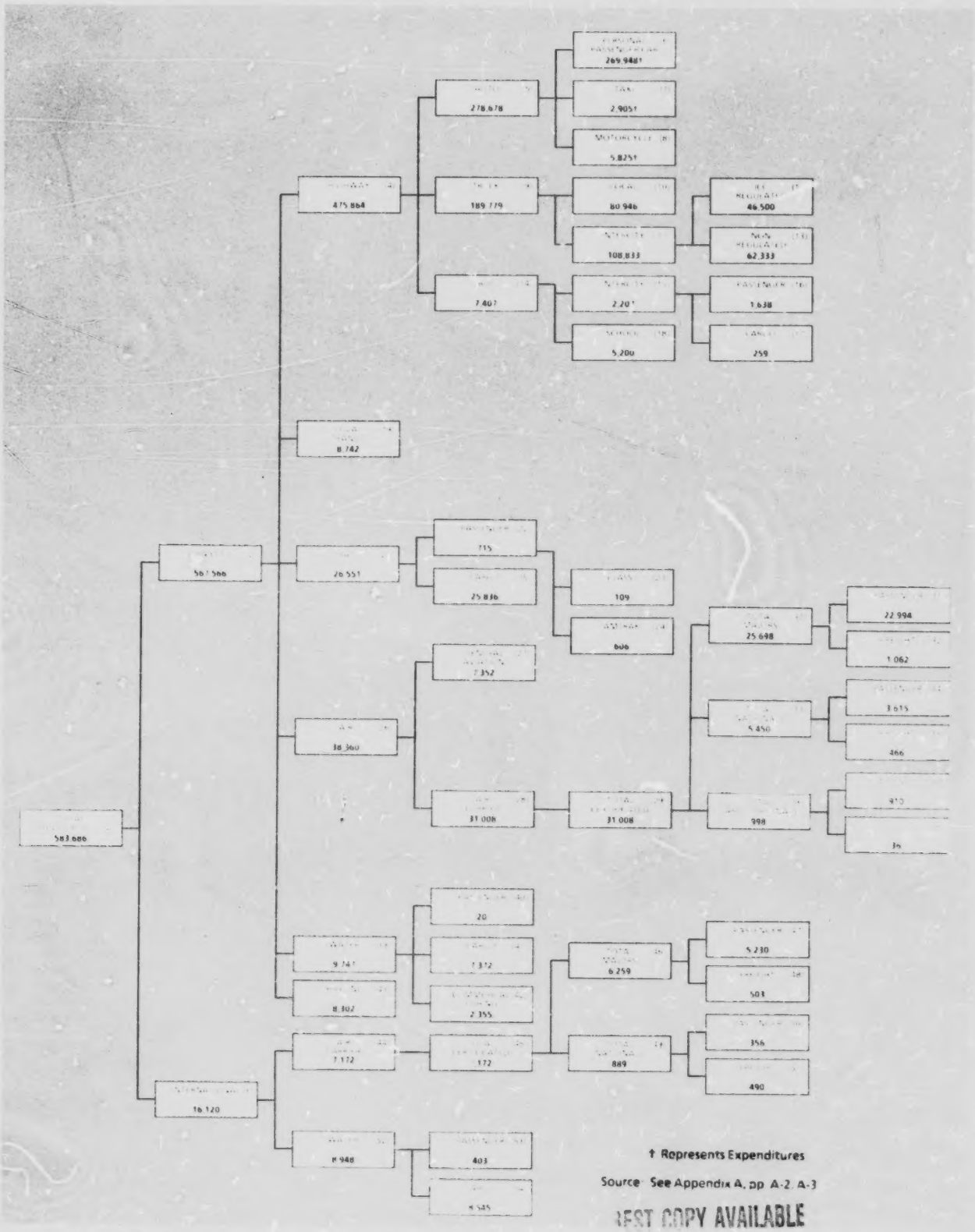

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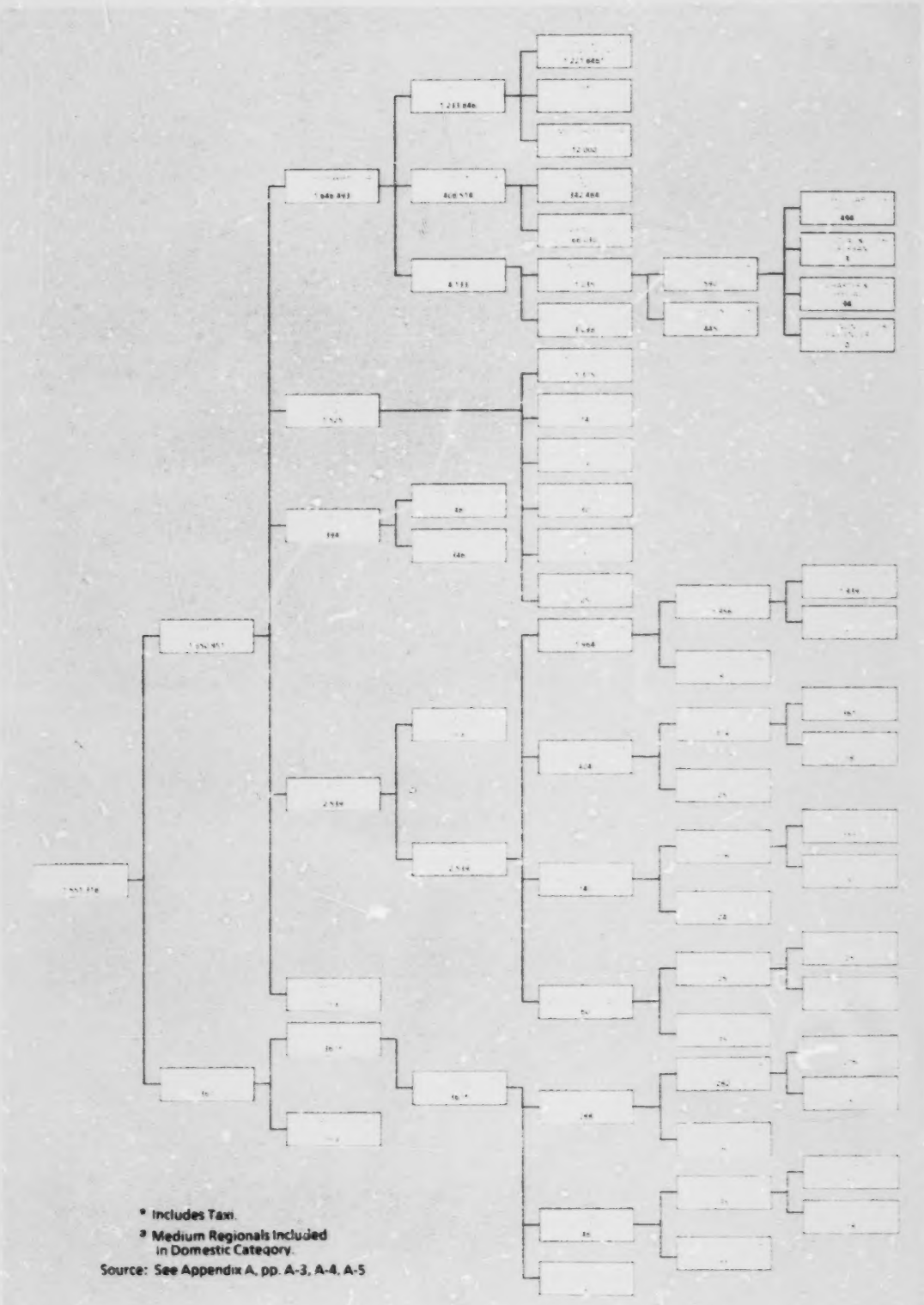
Figure 3. Vehicle-Miles (millions) - 1983

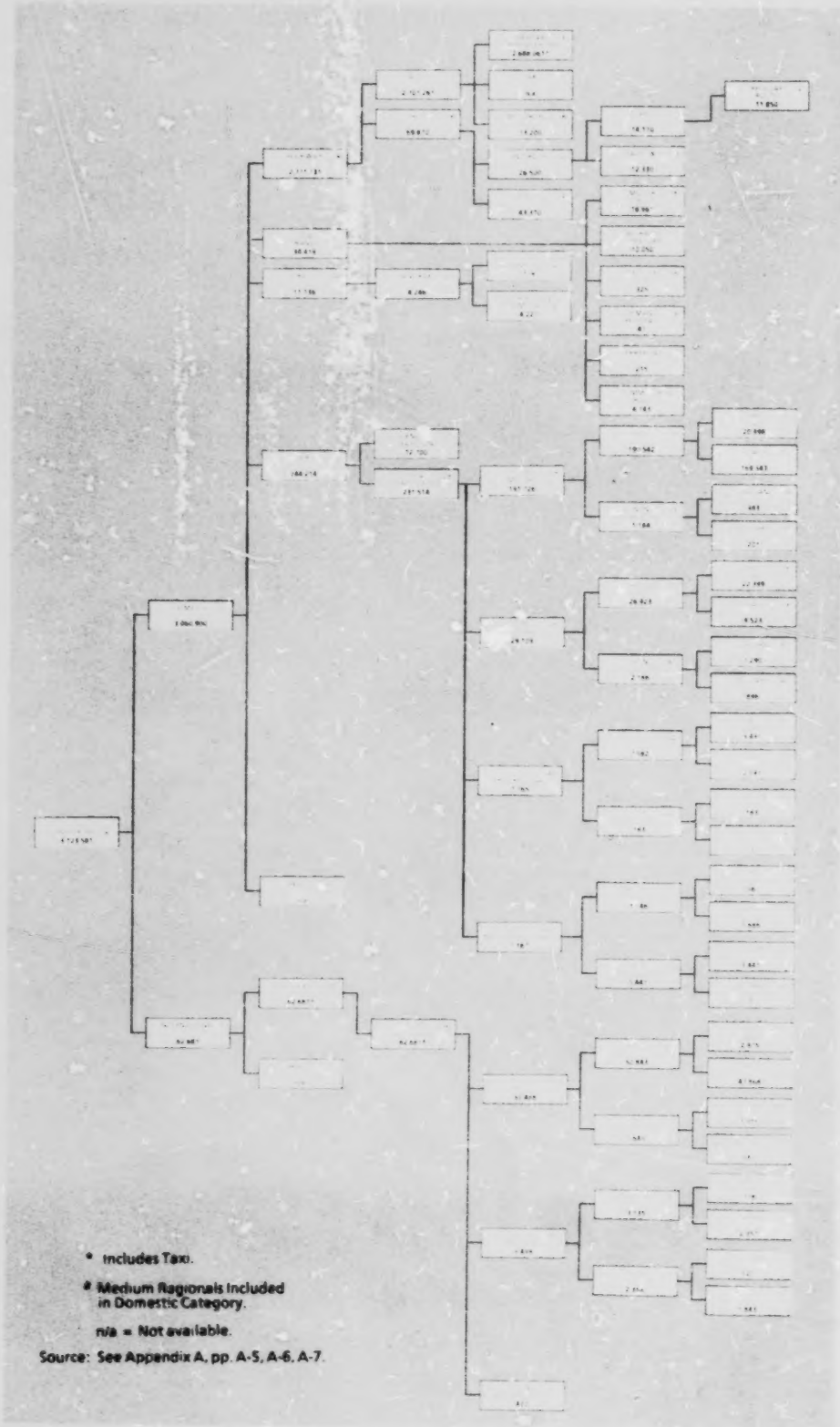


[a] Includes Taxi.

[b] Medium Regionals included in Domestic Category.

Source: See Appendix A, pp. A-3, A-4, A-5

Figure 4. Passenger-Miles (millions) - 1983



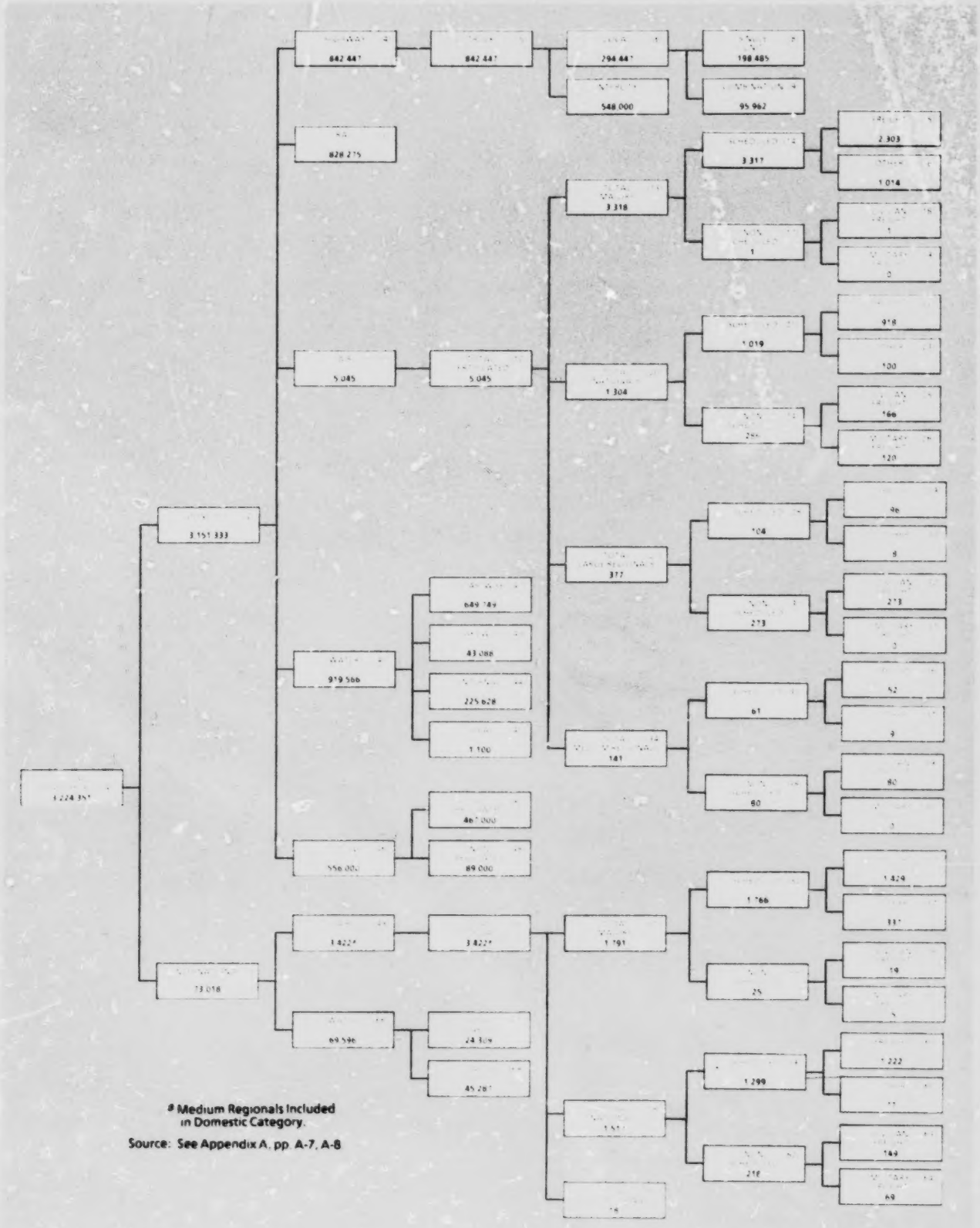
* Includes Taxi.

Medium Regionals included in Domestic Category.

n/a = Not available.

Source: See Appendix A, pp. A-5, A-6, A-7.

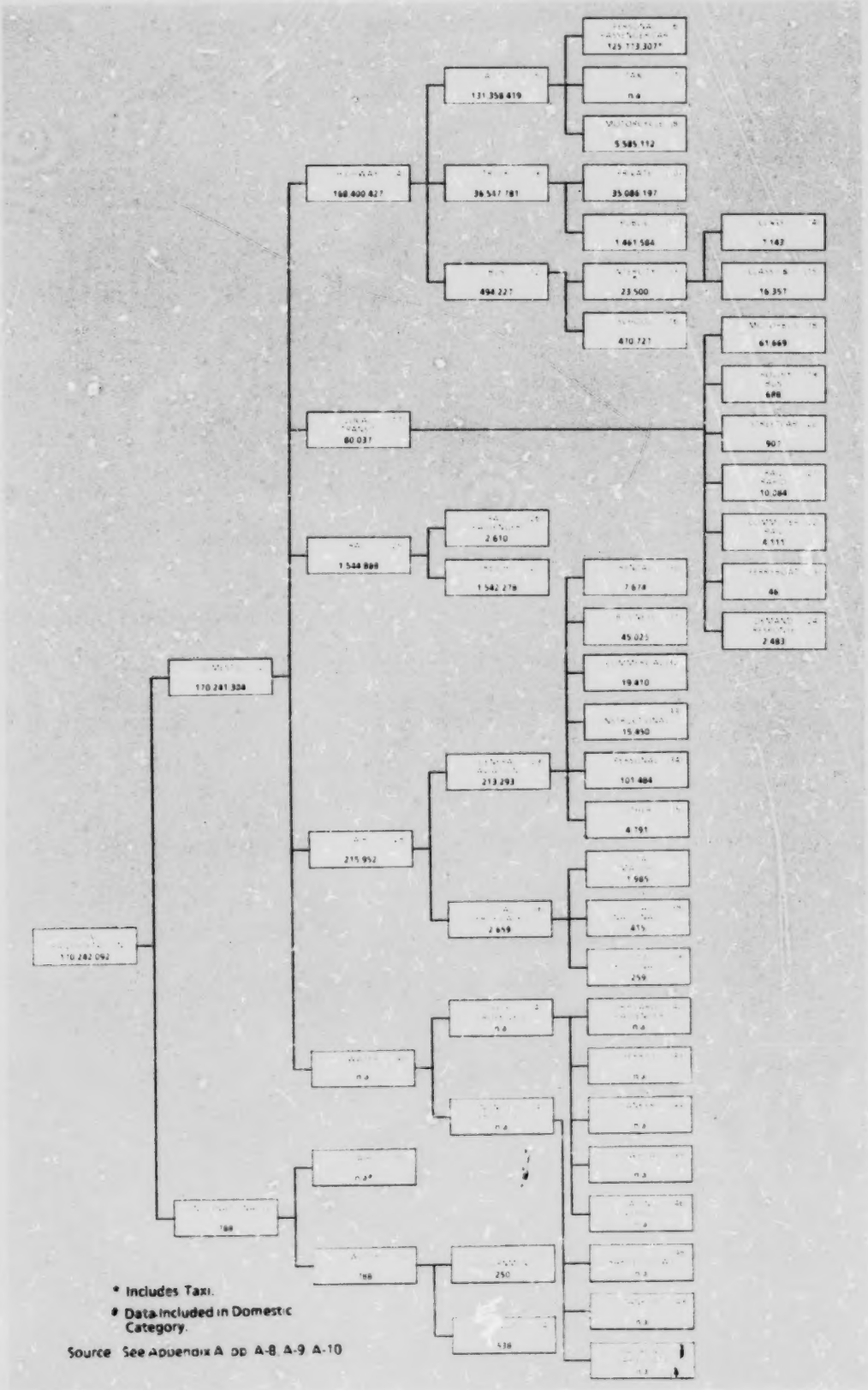
Figure 5. Revenue Ton-Miles of Freight (millions) - 1983



[a] Medium Regionals included in Domestic Category.

Source: See Appendix A, pp. A-7, A-8

Figure 6. Number of Vehicles - 1983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698
907
10 084
4 111
46
2 483
80 031
1 544 888
2 610
1 542 278
7 674
45 025
19 410
15 850
101 484
4 791
170 241 324
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215 952
2 659
1 985
415
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170 282 092
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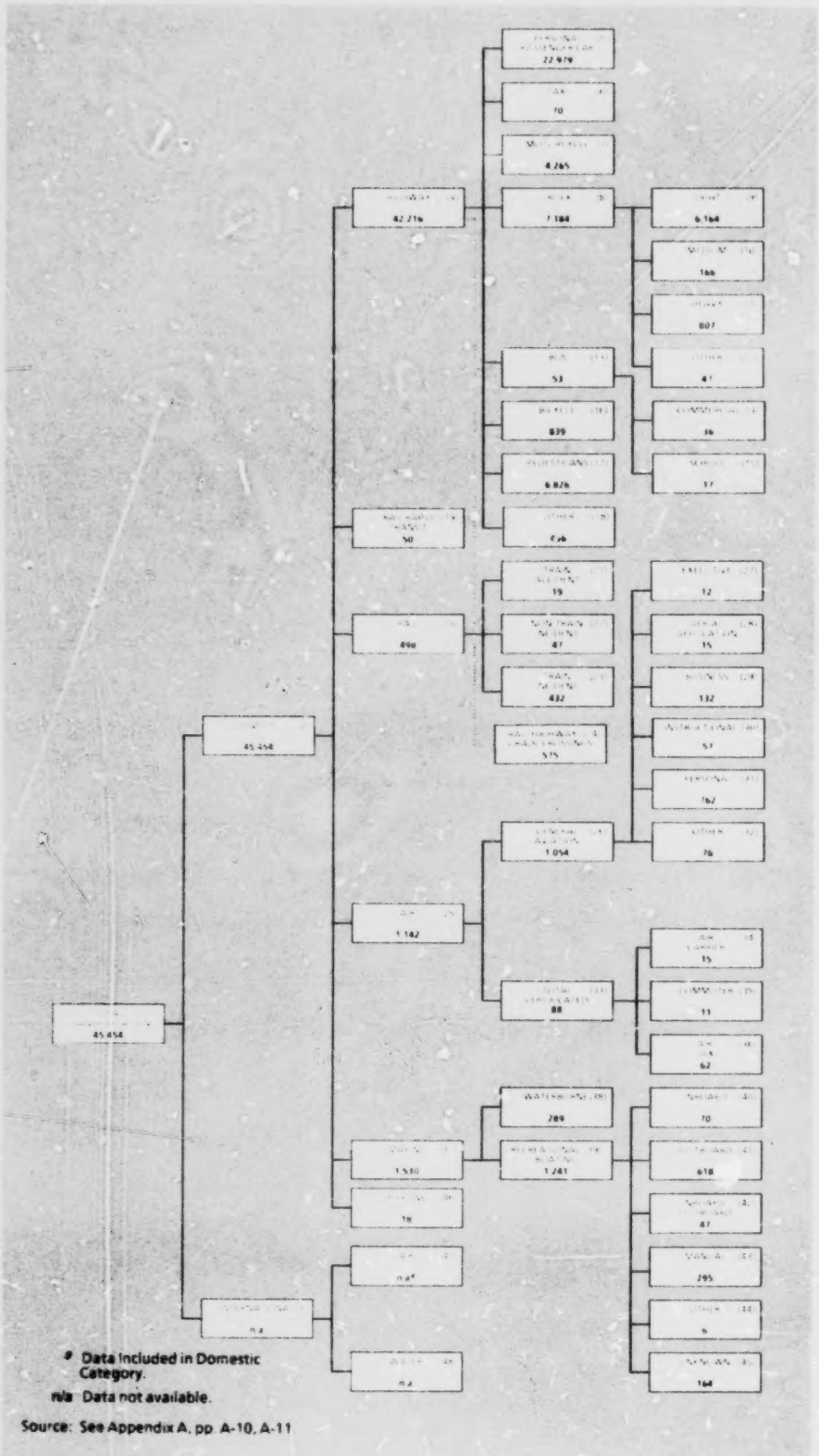
Figure 7. Number of Fatalities - 1983

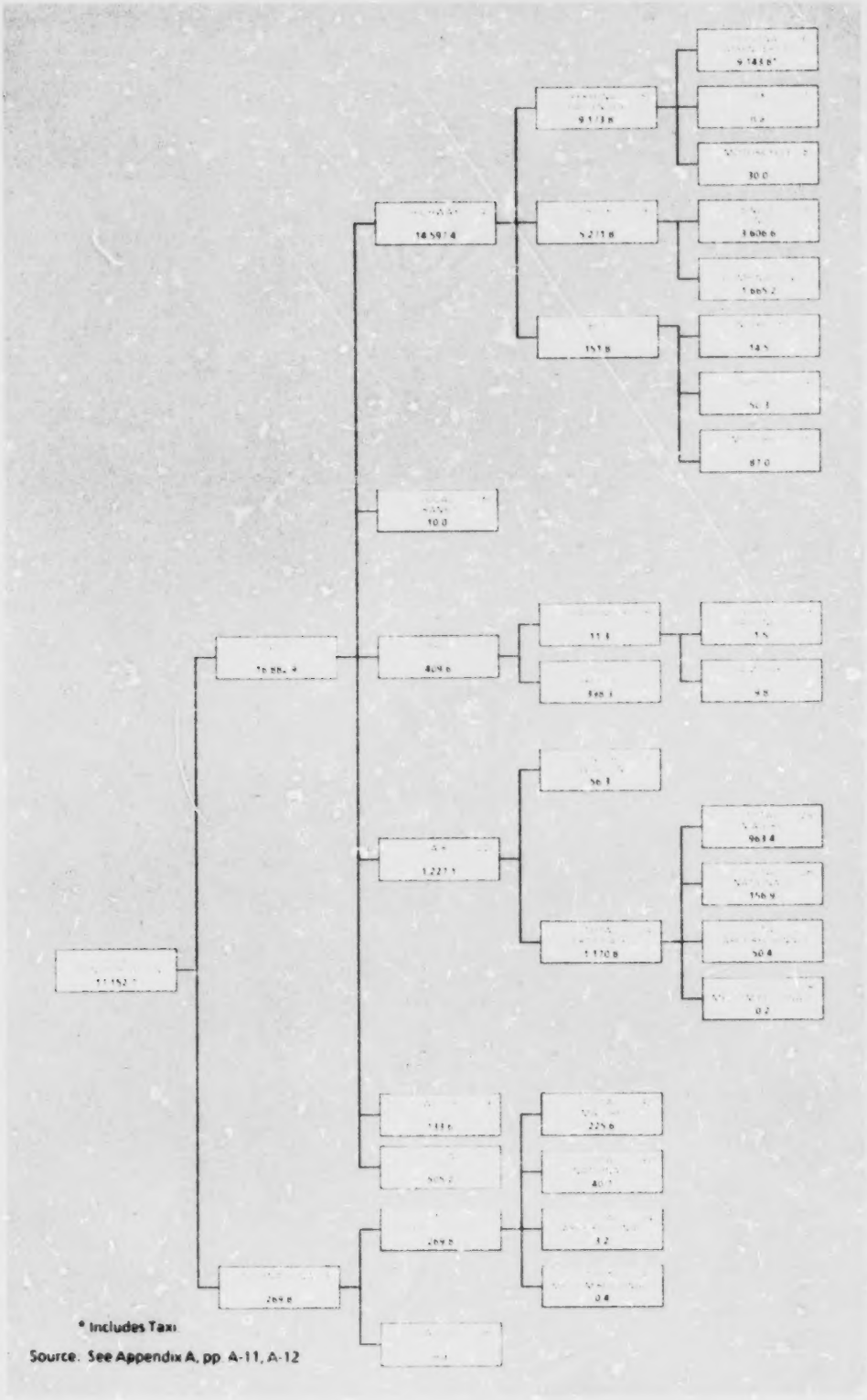


Data included in Domestic Category.

n/a Data not available.

Source: See Appendix A, pp. A-10, A-11

Figure 8. Energy Consumed in Transportation (figures in 10^{12} BTU) - 1983



* Includes Taxi

Source: See Appendix A, pp. A-11, A-12

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MODAL PROFILES
1973, 1982 and 1983

MODAL PROFILE SOURCE REFERENCES AND PERCENT CHANGE CALCULATION

Specific source references are obtained as follows: the letter directly to the right of the data element applies to all subsequent data elements in that column until the next letter appears. In some cases, data are shown which may not appear directly in the sources listed. These were obtained by addition/subtraction of referenced data or of other data in its column, and are marked with an asterisk.

Air Carrier Profile

For example:

1983	
25,697.8[a]	reference letter a
24,569.6	also applies to the three
103.1	subsequent data elements
1,025.1	
5,449.6[b]	reference letter b refers to a different data source

The specific source number and page or table reference may then be found at the end of each modal profile. All sources are listed in Appendix A--Source Information.

The 1982-1983 percent change column refers to the usual percent difference between 1982 data and 1983 data. The 1973-1983 average annual percent change is equal to C x 100, where C is obtained from the following relationship: $D^{83} = D^{73}(1 + C)^{10}$. (Note D^{73} and D^{83} refer to 1973 and 1983 data, respectively; C is the change; and the relationship is derived from the compound interest formula.)

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AIR CARRIER PROFILE

		1973	1982[1]	1983[1]	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Operating Revenues ($ millions)					
	Domestic					
	Majors, all services	8,382.4[a]	24,272.0[b]	25,697.8[b]	11.9	5.9
	Scheduled services	8,096.2	23,228.5	24,569.6	11.7	5.8
	Nonscheduled services	208.1	106.0	103.1	-6.8	-2.7
	Transport related	78.1	937.6	1,025.1	29.4	9.3
	Nationals, all services	1,061.3	5,308.9[c]	5,449.6[c]	17.8	2.7
	Scheduled services	953.1	4,524.7	4,850.7	17.7	7.2
	Nonscheduled services	29.7	645.3	480.1	32.1	-25.6
	Transport related	78.5	118.8	138.8	5.9	16.8
	Large Regionals, all services	250.3	602.6[d]	998.0[d]	14.8	65.6
	Scheduled services	232.1	565.4	928.5	14.9	64.2
	Nonscheduled services	10.5	24.7	49.2	16.7	99.2
	Transport related	7.7	12.5	20.2	10.1	61.6
	International					
	Majors, all services	2,526.9	5,705.0[e]	6,258.7[e]	9.5	9.7
	Scheduled services	2,257.1	5,362.1	5,842.4	10.0	9.0
	Nonscheduled services	227.0	108.8	108.6	-7.1	-0.2
	Transport related	42.8	233.8	307.6	21.8	31.6
	Nationals, all services	197.9	730.0[f]	889.5[f]	16.2	21.9
	Scheduled services	143.0	480.2	664.3	16.6	38.3
	Nonscheduled services	53.4	242.0	217.8	15.1	-10.3
	Transport related	1.5	7.8	7.4	17.3	-5.1
	Total Certificated	12,418.8	36,065.5[g]	38,595.9[g]	12.0	7.0
	Operating Expenses ($ millions)					
	Domestic					
	Majors, all services	7,967.7	25,019.0[b]	25,972.2[b]	12.5	3.8
	Nationals, all services	997.6	5,342.2[c]	5,284.7[c]	18.1	-1.1
	Large Regionals, all services	234.9	609.5[d]	982.8[d]	15.4	61.3
	International					
	Majors, all services	2,459.0	5,674.2[e]	5,830.6[e]	9.0	2.8
	Nationals, all services	174.3	777.6[f]	840.9[f]	17.0	8.1
	Total Certificated	11,833.5	36,804.3[g]	38,234.3[g]	12.4	3.9
II.	**INVENTORY[2]**					
	Number of Carriers					
	Total Domestic and International	48.0	84.0[h]	66.0[h]	3.2	-21.4
	Majors	14.0	11.0	11.0	-2.4	0.0
	Nationals	12.0	15.0	17.0	3.5	13.3
	Regionals #	22.0	58.0	38.0	5.6	-34.5
	Number of Aircraft Available for Service					
	Total Domestic and International	2,348.0	2,664.0	2,659.0	1.3	-0.2
	Majors	1,672.0	1,996.0	1,985.0	1.7	-0.6
	Nationals	417.0	455.0	415.0	-0.1	-8.8
	Regionals #	259.0	213.0	259.0	0.0	21.6
	Number of Employees					
	Total Domestic and International	311,499.0	331,989.0	330,314.0	0.6	-0.5
	Majors	n/a	276,871.0	269,331.0	.	-2.7
	Nationals	n/a	44,384.0	49,934.0	.	12.5
	Regionals #	n/a	10,734.0	11,049.0	.	2.9

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AIR CARRIER PROFILE (cont'd)

	1973	1982[i]	1983[i]	1973-1983 Average Annual % Change	1982-1983 % Change
III. PERFORMANCE					
Aircraft Revenue-Miles (millions)					
Domestic					
Certificated, all services	2,097.8[a]	2,442.3[j]	2,538.9[j]	1.9	4.0
Scheduled services	2,057.7	2,387.2	2,469.4	1.8	3.4
Nonscheduled services	40.1	55.1	69.5	5.7	26.1
Majors, all services	1,776.1	1,902.2[k]	1,964.4[k]	1.0	3.3
Scheduled services	1,743.4	1,893.7	1,956.1	1.2	3.3
Nonscheduled services	32.7	8.5	8.3	-12.8	-2.4
Nationals, all services	275.4	388.4[l]	404.0[l]	3.9	4.0
Scheduled services	270.7	368.7	379.3	3.4	2.9
Nonscheduled services	4.7	19.7	24.7	18.1	25.4
Large Regionals, all services	n/a	101.4[m]	140.4[m]	-	38.5
Scheduled services	46.3	82.0	116.0	9.6	41.5
Nonscheduled services	n/a	19.4	24.4	-	25.8
International					
Certificated, all services	457.9	362.2[n]	367.1[n]	-2.2	1.4
Scheduled services	390.4	311.7	325.7	-1.8	4.5
Nonscheduled services	67.5	50.5	41.4	-4.8	-18.0
Majors, all services	417.6	281.0[o]	288.6[o]	-3.6	2.7
Scheduled services	361.5	275.1	282.4	-2.4	2.7
Nonscheduled services	56.1	5.9	6.2	-19.8	5.1
Nationals, all services	n/a	60.7[p]	46.7[p]	-	-23.1
Scheduled services	40.3	32.5	35.3	-1.3	8.6
Nonscheduled services	n/a	28.2	11.4	-	-59.6
Large Regionals, all services	n/a	1.4[q]	2.5[q]	-	78.6
Scheduled services	n/a	0.0	1.0	-	-
Nonscheduled services	n/a	1.4	1.5	-	7.1
Medium Regionals, all services					
Domestic and International*	n/a	69.3[r]	59.7[r]	-	-13.4
Total Certificated*	2,555.7	2,873.8	2,963.9	1.5	3.1
Aircraft Revenue-Hours (thousands)					
Domestic					
Certificated, all services	5,183.4	5,962.5[j]	6,140.9[j]	1.7	3.0
Scheduled services	5,087.9	5,807.9	5,953.5	1.6	2.5
Nonscheduled services	95.5	154.6	187.4	7.0	21.2
Majors, all services	4,082.7	4,406.0[k]	4,562.6[k]	1.1	3.6
Scheduled services	4,013.9	4,387.4	4,544.5	1.3	3.6
Nonscheduled services	68.8	18.6	18.1	-12.5	-2.7
Nationals, all services	947.9	1,013.9[l]	1,051.6[l]	1.0	3.7
Scheduled services	935.2	958.1	984.6	0.5	2.8
Nonscheduled services	12.7	55.8	67.0	18.1	20.1
Large Regionals, all services	n/a	313.7[m]	432.4[m]	-	37.8
Scheduled services	152.8	257.1	361.3	9.0	40.5
Nonscheduled services	n/a	56.6	71.1	-	25.6
International					
Certificated, all services	947.9	739.8[n]	750.1[n]	-2.3	1.4
Scheduled services	811.5	632.3	663.2	-2.0	4.9
Nonscheduled services	136.4	107.5	86.9	-4.4	-19.2
Majors, all services	865.0	566.8[o]	582.8[o]	-3.9	3.4
Scheduled services	751.8	554.7	569.8	-2.7	2.7
Nonscheduled services	113.2	12.2	13.0	-19.5	6.6
Nationals, all services	n/a	123.3[p]	92.4[p]	-	-25.1
Scheduled services	82.9	64.7	70.1	-1.7	8.4
Nonscheduled services	n/a	58.6	22.3	-	-62.0

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AIR CARRIER PROFILE (cont'd)

	1973	1982[1]	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Large Regionals, all services	n/a	4.2[q]	5.6[q]	-	33.3
Scheduled services	n/a	0.0	1.9	-	-
Nonscheduled services	n/a	4.2	3.7	-	-11.9
Medium Regionals, all services Domestic and International*	n/a	274.4[r]	163.7[r]	-	-40.3
Total Certificated*	6,131.3[a]	6,976.7	7,054.7	1.4	1.1
Revenue Passenger-Miles (millions)					
Domestic					
Certificated, all services	130,450.1	213,651.2[j]	231,514.4[j]	5.9	8.4
Scheduled services	126,317.3	210,149.3	226,310.3	6.0	7.7
Nonscheduled services	4,132.8	3,481.9	5,205.1	2.3	49.5
Majors, all services	119,214.5	180,228.6[k]	191,725.5[k]	4.9	6.4
Scheduled services	115,352.2	178,968.9	190,542.4	5.2	6.5
Nonscheduled services	3,862.3	1,259.6	1,184.2	-11.2	-6.0
Nationals, all services	10,071.9	27,368.2[l]	29,108.4[l]	11.2	6.4
Scheduled services	9,829.6	26,275.6	26,922.5	10.6	2.5
Nonscheduled services	242.3	1,092.6	2,185.9	24.6	0.1
Large Regionals, all services	n/a	4,426.4[m]	7,765.2[m]	-	75.4
Scheduled services	1,163.7	4,113.1	7,581.8	20.6	84.3
Nonscheduled services	n/a	313.3	183.4	-	-41.5
International					
Certificated, all services	43,902.2	58,803.6[n]	62,680.9[n]	3.6	6.6
Scheduled services	35,640.0	49,494.6	54,836.6	4.4	10.8
Nonscheduled services	8,262.2	9,309.0	7,844.4	-0.5	-15.7
Majors, all services	43,009.5	47,150.6[o]	52,487.9[o]	2.0	11.3
Scheduled services	35,640.0	45,689.9	50,843.2	3.6	11.3
Nonscheduled services	7,369.5	1,460.8	1,644.7	-13.9	12.6
Nationals, all services	n/a	9,356.7[p]	5,498.9[p]	-	-41.2
Scheduled services	892.7	3,564.8	3,135.1	13.4	-12.1
Nonscheduled services	n/a	5,791.8	2,363.8	-	-59.2
Large Regionals, all services	n/a	16.7[q]	422.4[q]	-	2,429.3
Scheduled services	n/a	0.0	376.1	-	-
Nonscheduled services	n/a	16.7	422.4	-	2,429.3
Medium Regionals, all services Domestic and International*	n/a	3,887.5[r]	7,187.0[r]	-	84.9
Total Certificated*	174,352.3	276,322.3	301,382.3	5.6	9.1
Revenue Passenger Enplanements (millions)					
Domestic					
Certificated, all services	187.4	276.8[j]	298.5[j]	4.8	7.8
Scheduled services	183.3	274.3	295.6	4.9	7.8
Nonscheduled services	4.1	2.5	2.9	-3.4	16.0
Majors, all services	146.5	209.2[k]	224.1[k]	4.3	7.1
Scheduled services	144.8	208.4	223.4	4.4	7.2
Nonscheduled services	1.7	0.8	0.7	-8.5	-12.5
Nationals, all services	32.9	54.5[l]	56.7[l]	5.6	4.0
Scheduled services	32.5	53.8	55.9	5.6	3.9
Nonscheduled services	0.4	0.7	0.8	7.2	14.3
Large Regionals, all services	n/a	9.5[m]	15.3[m]	-	61.1
Scheduled services	8.0	9.1	14.9	6.4	63.7
Nonscheduled services	n/a	0.4	0.4	-	0.0
International					
Certificated, all services	21.2	22.7[n]	24.9[n]	1.6	9.7
Scheduled services	18.9	19.8	21.9	1.5	10.6
Nonscheduled services	2.3	2.9	3.0	2.7	3.5

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AIR CARRIER PROFILE (cont'd)

	1973	1982[1]	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Majors, all services	21.0[a]	18.7[o]	20.9[o]	-0.1	11.8
Scheduled services	18.9	18.2	20.3	0.7	11.5
Nonscheduled services	2.1	0.5	0.6	-11.8	20.0
Nationals, all services	n/a	3.0[p]	1.9[p]	-	-36.7
Scheduled services	0.2	1.5	1.2	19.6	-20.0
Nonscheduled services	n/a	1.5	0.7	-	-53.3
Large Regionals, all services	n/a	0.02[q]	0.15[q]	-	50.0
Scheduled services	n/a	0.0	0.1	-	-
Nonscheduled services	n/a	0.02	0.05	-	50.0
Medium Regionals, all services					
Domestic and International*	n/a	4.7[r]	4.2[r]	-	-10.6
Total Certificated*	208.5	304.2	327.6	4.6	7.7
Revenue Passenger Load Factor (%)					
Domestic					
Certificated, scheduled services	51.6	58.5[j]	59.9[j]	1.5	2.4
Majors, scheduled services	51.9	58.6[k]	60.0[k]	1.5	2.4
Nationals, scheduled services	48.7	58.7[l]	58.2[l]	1.8	-0.9
Large Regionals, scheduled services	n/a	54.9[m]	63.5[m]	-	15.7
International					
Certificated, scheduled services	54.1	61.4[n]	64.3[n]	1.7	4.7
Majors, scheduled services	54.1	60.7[o]	63.8[o]	1.7	5.1
Nationals, scheduled services	n/a	72.9[p]	71.3[p]	-	-2.2
Large Regionals, scheduled services	n/a	0.0	85.7[q]	-	-
Medium Regionals, all services					
Domestic and International*	n/a	48.2[r]	65.0[r]	-	34.9
U.S. International Passenger Travel					
Total Passenger-Arrivals (thousands)	n/a	20,216.0[s]	23,211.0[s]	-	14.8
Flag of Carrier:					
United States	n/a	10,163.0	11,623.0	-	14.4
Foreign	n/a	10,054.0	11,588.0	-	15.3
Total Passenger-Departures (thousands)	n/a	19,332.0	21,607.0	-	11.8
Flag of Carrier:					
United States	n/a	9,485.0	10,531.0	-	11.0
Foreign	n/a	9,837.0	11,076.0	-	12.6
Total Revenue Ton-Miles (millions)					
Domestic					
Certificated, all services	16,707.0	25,838.7[j]	28,196.2[j]	5.4	9.1
Scheduled services	16,239.9	25,057.5	27,077.8	5.3	8.1
Nonscheduled services	467.1	781.2	1,118.4	9.1	43.2
Majors, all services	14,899.7	21,173.2[k]	22,490.8[k]	4.2	6.2
Scheduled services	14,497.8	21,045.6	22,371.0	4.4	6.3
Nonscheduled services	401.9	127.6	119.8	-11.4	-6.1
Nationals, all services	1,121.7	3,811.6[l]	4,215.3[l]	14.2	10.6
Scheduled services	1,097.4	3,481.9	3,710.9	13.0	6.6
Nonscheduled services	24.3	329.8	504.4	35.4	52.9
Large Regionals, all services	533.5	682.4[m]	1,153.5[m]	8.0	69.0
Scheduled services	496.4	445.3	862.5	5.7	93.7
Nonscheduled services	152.1	237.2	291.0	6.7	22.7
International					
Certificated, all services	7,220.6	9,212.2[n]	9,689.8[n]	3.0	5.2
Scheduled services	6,002.0	7,792.8	8,602.4	3.7	10.4
Nonscheduled services	1,218.6	1,419.4	1,087.4	-1.1	-23.4

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AIR CARRIER PROFILE (cont'd)

	1973	1982[1]	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Majors, all services	6,081.6[a]	6,547.8[o]	7,039.6[o]	1.5	7.5
Scheduled services	5,164.0	6,366.2	6,850.5	2.9	7.6
Nonscheduled services	917.6	181.6	189.1	-14.6	4.1
Nationals, all services	1,849.7	2,346.0[p]	2,067.3[p]	1.1	-11.9
Scheduled services	1,838.0	1,382.7	1,612.6	-1.3	16.6
Nonscheduled services	211.7	963.3	454.7	7.9	-52.8
Large Regionals, all services	n/a	17.0[q]	60.5[q]	-	255.9
Scheduled services	99.3	0.0	37.6	-8.3	-
Nonscheduled services	n/a	17.0	22.9	-	34.7
Medium Regionals, all services					
Domestic and International*	n/a	472.8[r]	859.1[r]	-	81.7
Total Certificated*	23,927.6	35,524.0	38,745.1	4.9	9.1
Revenue Ton-Miles of Freight (millions)[3]					
Domestic					
Certificated, all services	3,662.0	4,475.6[s]	5,044.6[s]	3.3	12.7
Scheduled services*	3,608.2	4,042.6	4,446.7	2.1	10.0
Nonscheduled services*	53.8	433.0	597.9	27.2	38.1
Majors, all services	2,978 2	3,276.2[k]	3,436.6[k]	1.4	4.9
Scheduled services*	2,962.6	3,148.7	3,316.8	1.1	5.3
Nonscheduled services*	15.6	127.6	119.8	22.6	6.1
National, all services	114.4	1,074.8[l]	1,304.2[l]	27.6	21.3
Scheduled services*	114.4	854.3	1,018.5	24.4	19.2
Nonscheduled services*	n/a	220.5	285.7	-	29.6
Large Regionals, all services	523.5	242.7[m]	377.0[m]	-3.2	55.3
Scheduled services*	496.4	36.9	104.3	-14.6	82.7
Nonscheduled services*	n/a	205.8	272.7	-	32.5
International					
Certificated, all services	2,830.2	3,331.9[n]	3,421.8[n]	1.9	2.7
Scheduled services*	2,438.0	2,843.4	3,118.7	2.5	9.7
Nonscheduled services*	392.2	488.5	303.1	-2.5	-38.0
Majors, all services	1,780.5	1,832.8[o]	1,790.6[o]	0.1	-2.3
Scheduled services*	1,600.0	1,797.2	1,766.1	1.0	-1.7
Nonscheduled services*	180.5	35.5	24.5	-18.1	31.0
Nationals, all services	1,049.7	1,410.2[p]	1,517.0[p]	3.8	7.6
Scheduled services*	838.0	1,026.2	1,299.0	4.5	87.4
Nonscheduled services*	211.7	384.0	218.0	0.3	-43.2
Large Regionals, all services	n/a	15.3[q]	18.3[q]	-	19.6
Scheduled services*	n/a	0.0	0.0	-	0.0
Nonscheduled services*	n/a	15.3	18.3	-	19.6
Medium Regionals, all services					
Domestic and International*	n/a	84.1[r]	140.7[r]	-	67.3
Total Certificated*	n/a	7,891.5	8,607.1	-	9.1
Air Carrier Accidents					
Operating under 14 CFR 121					
All scheduled services	36.0[t]	15.0[t]	21.0[t]	-5.3	40.0
Nonscheduled services	n/a	2.0[x]	4.0[x]	-	100.0
Operating under 14 CFR 135					
All scheduled services	n/a	27.0[t]	17.0[t]	-	-37.0
Nonscheduled (On-demand Air Taxis)	n/a	135.0	144.0	-	6.7
Total	36.0*	179.0*	186.0*	17.9	3.9

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AIR CARRIER PROFILE (cont'd)

	1973	1982[1]	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Fatal Air Carrier Accidents					
Operating under 14 CFR 121					
All scheduled services	8.0[t]	3.0[t]	4.0[t]	-6.7	33.3
Nonscheduled services	0.0	0.0[x]	1.0[u]	0.0	-
Operating under 14 CFR 135					
All scheduled services	n/a	5.0[t]	2.0[t]	-	-60.0
Nonscheduled (On-demand Air Taxis)	n/a	31.0	28.0	-	-9.7
Total	8.0*	39.0*	35.0*	15.9	-10.3
Air Carrier Fatalities					
Operating under 14 CFR 121					
All scheduled services	221.0[t]	233.0[t]	15.0[t]	-23.6	-93.6
Nonscheduled services	0.0	0.0[x]	7.0	0.0	-
Operating under 14 CFR 135					
All scheduled services	n/a	14.0[t]	11.0[t]	-	-21.4
Nonscheduled (On-demand Air Taxis)	n/a	72.0	62.0	-	-13.9
Total	138.0*	319.0*	95.0*	-3.7	-70.2

n/a = not available.
\+ not calculable.
* Data derived by addition/subtraction and may not appear directly in the data source.
\# Regionals includes both large and medium regionals.

1 Domestic encompasses operations within and between the 50 states of the United States, the District of Columbia, Puerto Rico and the Virgin Islands. It also encompasses Canadian and Mexican transborder operations. All other operations are considered International. Beginning in 1981, referred to as Form 41.

2 Includes scheduled and nonscheduled (charter) operators. By Sec. 2 of the Airline Deregulation Act of 1978 Act "charter air carrier" and "charter air transportation" replaced supplemental air carriers and supplemental air transportation which were formerly sec. 101(36) and (37) of the Act. The 24 pre-deregulation supplemental carriers all now have scheduled service authority.

3 Scheduled includes total of freight, air express, U.S. mail and foreign mail. Nonscheduled includes total of civilian freight and other revenue; also military freight and other revenue.

The following data references are listed in Appendix A, p. 13.

Source	Reference Number/Location
a	20) personal communication
b	10) p. 3
c	10) p. 27
d	10) p. 46
e	10) p. 4
f	10) p. 28
g	10) p. 1
h	47) personal communication
j	11) p. 2
k	11) p. 5
l	11) pp. 46, 47
m	11) pp. 83, 85
n	11) p. 3
o	11) p. 6
p	11) p. 48
q	11) pp. 84, 86
r	11) pp. 112,113
s	43) Tables IIa and IId
t	17) January 1985
u	17) January 1984
x	17) January 1983

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GENERAL AVIATION PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Expenditures ($ millions)					
	Aircraft	797.0[a]	2,814.0[b]	1,935.0[b]	9.3	-31.2
	Operating Costs	3,314.0	5,373.0	5,417.0	5.0	0.8
	Total	4,111.0	8,187.0	7,352.0	6.0	-10.2
II.	**INVENTORY**					
	Number of Active Aircraft					
	Executive	8,139.0[c]	15,739.0[d]	17,064.0[d]	7.7	8.4
	Business	33,199.0	47,873.0	45,025.0	3.1	-6.0
	Commuter Carrier	n/a	1,070.0	1,479.0	-	38.2
	Instructional	12,686.0	14,708.0	15,450.0	2.0	5.0
	Personal	74,724.0	94,820.0	101,484.0	3.1	7.0
	Aerial Application	6,315.0	11,312.0	11,074.0	5.8	-2.2
	Air Taxi	5,605.0	8,122.0	6,857.0	2.0	-15.6
	Rental	6,676.0	9,844.0	7,674.0	1.4	-22.0
	Other Work	2,250.0[e]	1,733.0	2,392.0	0.6	38.0
	Other	3,946.0	4,546.0	4,791.0	2.0	5.4
	Total	153,540.0[e]	209,779.0	213,293.0	3.3	1.7
III.	**PERFORMANCE**					
	Number of Hours Flown (millions)					
	Executive	n/a	5.0	5.2	-	4.0
	Business	8.6[f]	6.9	6.0	-3.5	-13.0
	Commuter Carrier	n/a	1.1	1.6	-	45.5
	Instructional	7.6	4.9	4.9	-4.3	0.0
	Personal	7.5	8.2	8.5	1.3	3.7
	Aerial Application	n/a	3.3	2.9	-	-12.1
	Air Taxi	n/a	3.2	2.5	-	-21.9
	Rental	n/a	2.9	2.4	-	-17.2
	Other Work	n/a	0.5	0.6	-	20.0
	Other	0.7	0.6	0.6	-1.5	0.0
	Total	30.0	36.5	35.2	[illegible]	-3.6
	Number of Fatalities					
	Executive	54.0[g]	20.0[g]	12.0[g]	-14.0	-40.0
	Business	120.0	153.0	132.0	1.0	-13.7
	Instructional	49.0	36.0	57.0	1.5	58.3
	Personal	828.0	810.0	762.0	-0.8	-5.9
	Aerial Application	76.0	17.0	15.0	-15.0	-11.8
	Other	126.0	142.0	76.0	-4.9	-46.5
	Total	1,253.0	1,178.0	1,054.0	-1.7	-10.5
	Accidents					
	Fatal	665.0	589.0	550.0	-1.9	-6.6
	Total	4,025.0	3,233.0	3,094.0	-2.6	-4.3
	Accident Rate per 100,000 Aircraft Hours Flown					
	Fatal	2.5[h]	1.8[h]	1.7[h]	-3.8	-5.6
	Total	15.2	10.0	9.4	-4.7	-6.0

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GENERAL AVIATION PROFILE (cont'd)

* In 1973, classified as 'Industrial Special.'

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	Reference Number/Location
a	19) p. 5
b	21) p. 5
c	36) Table 8.1
d	37) Tables 2-4, 2-9
e	36) Table 8.6
f	36) Table 8.3
g	16) personal communication
h	42) Charts 28, 29

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HIGHWAY PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Government Expenditures ($ millions)					
	Federal					
	Highway Trust Fund	141.0[a]	272.0[a]	283.0[a]	7.2	4.0
	Other*	375.0	948.0	600.0	4.8	-36.7
	Total federal	516.0	1,220.0	883.0	5.5	-27.6
	State and Local					
	State and D.C.	15,788.0	25,062.0	26,916.0	5.5	7.4
	Local	7,589.0	16,730.0	18,331.0	9.2	9.6
	Total state and local*	23,377.0	41,792.0	45,247.0	6.8	8.3
	Total	23,893.0	43,012.0	46,130.0	6.8	7.3
II.	**INVENTORY****					
	Rural Mileage					
	Under State Control	710,461.0[b]	825,385.0[c]	817,206.0[c]	1.4	-0.9
	Under Local Control					
	County roads	1,727,834.0	1,509,453.0	1,534,375.0	-1.2	1.7
	Town and township roads	489,164.0	440,831.0	457,495.0	-0.7	3.8
	Other local roads	32,448.0	189,506.0	146,090.0	16.2	-23.0
	Total	2,249,446.0	2,139,790.0	2,137,960.0	-0.5	-0.1
	Urban Mileage					
	Under State Control	81,692.0	102,671.0	99,627.0	2.0	-3.0
	Under Local Control					
	County roads	n/a	68,339.0	74,658.0	-	9.3
	Town and township roads	n/a	46,334.0	61,199.0	-	32.1
	Other local roads	n/a	421,699.0	425,973.0	-	1.0
	Total	549,537.0	536,372.0	561,830.0	0.2	4.8
	Total Federally Controlled Mileage†	215,747.0	262,078.0	263,015.0	2.0	0.4
	Total Urban Mileage	631,229.0	640,556.0	662,350.0	0.5	3.4
	Total Rural and Urban Mileage	3,806,883.0	3,866,296.0	3,879,638.0	0.2	0.4

n/a = not available.

* Figures obtained by addition/subtraction and may not appear directly in data source.

** 1982 and 1983 now based on merged Highway Performance Monitoring System (HPMS) data and may vary from previous years.

† Mileage in Federal parks, forests, and reservations that are not a part of the state and local highway system.

Source: The following data references are listed in Appendix A, p. 14.

Source	Reference Number/Location
a	39) Table HF-10
b	39) Table M-1
c	39) Table HM-10

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AUTOMOBILE PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Auto Expenditures ($ millions)					
	New and used cars*	41,243.0[a]	73,568.0[b]	88,275.0[b]	7.9	20.0
	Tires, tubes, accessories and parts	8,939.0	21,166.0	22,836.0	9.8	7.9
	Gasoline and oil	28,635.0	90,386.0	90,003.0	12.1	-0.4
	Tolls	803.0	1,100.0	1,136.0	3.5	3.3
	Insurance premiums less claims paid	5,240.0	9,506.0	10,626.0	7.3	11.8
	Repair, greasing, washing, parking, storage, rental	14,657.0	36,988.0	38,848.0	10.2	5.0
	Auto registration fees	1,958.0[c]	3,332.0[c]	3,641.0[c]	6.4	9.3
	Driver's license fees	249.0	434.0	461.0	6.4	6.2
	Total*	101,724.0	238,846.0	255,826.0	9.7	7.1
	Taxi Expenditures ($ millions)	1,556.0[a]	3,103.0[b]	2,905.0[b]	6.4	-6.4
	Business Auto Expenditures ($ millions)	11,619.0[d]	24,933.0[d]	31,030.0[d]	10.3	24.5
	Government Auto Expenditures ($ millions)	389.0	806.0	998.0	9.9	23.8
	Total Business/Government Expenditures*	12,008.0	25,740.0	32,028.0	10.3	24.4
II.	**INVENTORY**					
	Number of Vehicle Registrations					
	Passenger cars and taxis	101,188,735.0[e]	123,697,863.0[e]	125,773,307.0[e]	2.2	1.7
	Motorcycles	4,332,580.0	5,743,463.0	5,585,112.0	2.6	-2.8
	Motor vehicle licensed drivers (thousands)	121,628,197.0[f]	150,310.0[f]	154,221.0[f]	-48.7	2.6
	Number of Employees					
	Taxis	96,400.0[g]	42,200.0[g]	39,400.0[g]	-8.6	-6.6
III.	**PERFORMANCE**					
	Vehicle Miles (millions)[1]					
	Rural**					
	Interstate rural	341,633.0[h]	100,303.0[h]	101,276.0[h]	-11.5	10.0
	Other arterial rural***	-	186,894.0	188,238.0	-	0.7
	Other rural	102,631.0	186,317.0	187,728.0	6.2	0.8
	All rural	444,264.0	473,514.0	477,242.0	0.7	0.8
	Urban					
	Interstate urban	n/a	138,785.0	151,529.0	-	9.2
	Other urban[2]	n/a	579,324.0	605,075.0	-	4.5
	All urban	592,191.0	718,109.0	756,604.0	2.5	5.4
	Total Rural and Urban	1,036,455.0	1,191,623.0	1,233,846.0	1.8	3.5
	Vehicle Miles (millions)					
	Motorcycles	19,594.0	12,000.0	12,000.0	-4.8	0.0
	Passenger cars and taxis	1,016,861.0	1,179,623.0	1,221,846.0	1.9	3.6
	Total	1,036,455.0	1,191,623.0	1,233,846.0	1.8	3.5
	Passenger-Miles (millions)					
	Total travel, passenger cars and taxis[3]	2,237,094.0	2,595,171.0	2,688,061.0	1.9	3.6
	Total travel, motorcycles [4]	21,553.0	13,200.0	13,200.0	-4.8	0.0
	Average Miles Traveled per Vehicle					
	Motorcycles	4,498.0	2,086.0	2,149.0	-7.1	3.0
	Passenger cars and taxis	9,992.0	9,533.0	9,641.0	-0.4	1.1
	Total	9,767.0	9,202.0	9,325.0	-0.5	1.3
	Average Fuel Consumption per Vehicle (gallons)					
	Motorcycle	90.0	42.0	43.0	-7.1	2.4
	Passenger cars and taxis	763.0	587.0	577.0	-2.8	-1.7
	Total	736.0	563.0	555.0	-2.8	-1.4

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AUTOMOBILE PROFILE (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Number of Vehicles in All Accidents					
Motorcycles	360,000.0[i]	490,000.0[i]	480,000.0[i]	2.9	-2.0
Passenger cars	23,300,000.0	23,200,000.0	23,500,000.0	0.1	1.3
Taxis	170,000.0	220,000.0	140,000.0	-1.9	-36.4
Number of Vehicles in Fatal Accidents					
Motorcycles	2,900.0	4,500.0	4,400.0	4.3	-2.2
Passenger cars	49,000.0	37,700.0	36,000.0	-3.0	-4.5
Taxis	260.0	400.0	300.0	1.4	-25.0
Number of Occupant & Non Occupant Fatalities					
Motor vehicles	54,052.0[i]	43,945.0[i]	42,589.0[i]	-2.4	-3.1
Passenger cars	33,370.0	23,330.0	22,979.0	-3.8	-1.5
Taxis	170.0[i]	260.0[i]	70.0[i]	-8.5	-73.1
Motorcycles, total	3,230.0[i]	4,453.0[i]	4,265.0[i]	-2.8	-4.2
Motorcycles	2,850.0[i]	4,270.0	4,104.0	3.7	-3.9
Mopeds	280.0	111.0	91.0	-10.6	-18.0
Other and unknown	100.0	72.0	50.0	-6.7	-30.1
Bicycles[5]	1,070.0[i]	883.0	839.0	-2.4	-5.0
Pedestrians[5]	8,930.0	7,331.0	6,826.0	-2.7	-6.9
Fatalities in Vehicular Accidents[6]					
Passenger cars	n/a	31,590.0	30,486.0	-	-3.5
Motorcycles	n/a	4,609.0	4,418.0	-	-4.1
Occupant Fatality Rate					
Per 100 million vehicle-miles					
Passenger cars	3.3	2.1	1.9	-5.4	-9.5
Motorcycles	16.5	37.1	35.5	8.0	-4.3
Per 10,000 registered vehicles					
Passenger cars	3.3	1.9	1.8	-5.9	-5.3
Motorcycles	7.4	7.8	7.6	0.3	-2.6
Vehicle Involvement Rate					
Per 100 million vehicle-miles					
Passenger cars	4.8	3.0	2.7	-5.6	-10.0
Motorcycles	16.7	37.5	36.0	8.0	-4.0
Per 10,000 registered vehicles					
Passenger cars	4.8	2.8	2.6	-6.0	-7.1
Motorcycles	7.5	7.8	7.7	0.3	-1.3

n/a = not available.
* Figure obtained by addition/subtraction and may not appear directly in data source.
** In 1973, interstate rural was categorized as main rural and other rural was categorized as local rural.
*** Figure included in Interstate rural.
1 Includes passenger cars, taxis, and motorcycles. Also, 1982/1983 data reflect changes in FHWA reporting methods and may not be comparable to previous years.
2 Urban consists of travel on all roads and streets in urban places of 5,000 or greater population.
3 Derived by multiplying passenger car and taxi vehicle-miles by an average occupancy rate of 2.2.
4 Derived by multiplying motorcycle vehicle-miles by an average occupancy rate of 1.1.
5 Involvement only with motor vehicle.
6 Includes all fatalities in the accident in which the vehicle types were listed.

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	Reference Number/Location	Source	Reference Number/Location
a	28) Table 2.4	f	39) Table DL-1
b	29) Table 2.4	g	35) SIC 412
c	39) Table MV-2	h	39) Table VM-1
d	27) personal communication	i	15) pp. 47, 56
e	39) Table MV-1	j	41) personal communication

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BUS PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Expenditures ($ millions)					
	School bus	1,626.0[a]	4,976.0[b]	5,200.0[b]	12.3	4.5
	Operating Revenues ($ millions)					
	Intercity bus, total	1,022.7[c]	2,103.1[d]	2,211.3[e]	8.0	5.1
	Intercity bus, Class I*	814.6	1,439.0	1,276.5[c]	4.6	-11.3
	Operating Expenses ($ millions)					
	Intercity bus, total	937.9	2,044.3	2,167.1	8.7	6.0
	Intercity bus, Class I*	738.0	1,409.8	1,283.2	5.7	-9.0
	Taxes Assignable to Operations ($ millions)[1]					
	Intercity bus, total	89.6	127.3	n/a	-	-
	Intercity bus, Class I*	69.8	91.3	88.5[d]	2.4	-3.1
II.	**INVENTORY**					
	Number of Operating Companies					
	Intercity bus, total	1,000.0	1,520.0	2,300.0	8.7	51.3
	Intercity bus, Class I*	75.0	49.0	45.0[c]	-5.0	-8.2
	Number of Vehicles					
	Intercity bus, total	20,800.0	22,000.0	23,500.0	1.2	6.8
	School bus	333,892.0[f]	442,133.0[f]	470,727.0[f]	2.9	6.5
	Intercity bus, Class I*	9,300.0	7,680.0[d]	7,143.0[c]	-2.6	-7.0
	Number of Employees of Operating Companies					
	Intercity bus, total	48,400.0	49,500.0	50,000.0[e]	0.3	1.0
	Intercity bus, Class I*	33,829.0	30,280.0	25,020.0[c]	-3.0	-17.4
	Miles of Highway Served					
	Intercity bus, total	270,000.0	270,000.0	n/a	-	-
	Intercity bus, Class I*	198,000.0	187,000.0	n/a	-	-
III.	**PERFORMANCE**					
	Vehicle Miles (millions)**					
	Commercial bus					
	Rural					
	Interstate rural	n/a	319.0[g]	322.0[g]	-	0.9
	Other arterial rural	n/a	468.0	470.0	-	0.4
	Other rural	n/a	461.0	461.0	-	0.0
	All rural	1,003.0[g]	1,248.0	1,253.0	2.3	0.4
	Urban					
	Interstate urban	n/a	341.0	385.0	-	12.9
	Other urban	n/a	1,988.0	2,016.0	-	1.4
	All urban[2]	1,545.0	2,329.0	2,401.0	4.5	3.1
	Total Rural and Urban	2,548.0	3,577.0	3,648.0	3.7	2.0
	School bus and nonrevenue bus					
	Rural					
	Interstate rural	n/a	181.0	184.0	-	1.7
	Other arterial rural	n/a	617.0	617.0	-	0.0
	Other rural	n/a	1,021.0	1,022.0	-	0.1
	All rural	1,915.0	1,819.0	1,823.0	-0.5	0.2
	Urban					
	Interstate urban	n/a	218.0	232.0	-	6.2
	Other urban	n/a	1,025.0	1,037.0	-	1.2
	All urban[2]	497.0	1,243.0	1,269.0	9.8	2.1
	Total Rural and Urban	2,412.0	3,062.0	3,098.0	2.5	1.2

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BUS PROFILE (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
All buses					
Rural					
Interstate rural	n/a	500.0	506.0	-	1.2
Other arterial rural	n/a	1,085.0	1,087.0	-	0.2
Other rural	n/a	1,482.0	1,483.0	-	0.1
All rural	2,918.0	3,067.0	3,076.0	0.5	0.3
Urban					
Interstate urban	n/a	559.0	617.0	-	8.4
Other urban	n/a	3,013.0	3,053.0	-	1.3
All urban[2]	2,042.0	3,572.0	3,670.0	6.0	2.7
Total Rural and Urban	4,960.0	6,639.0	6,746.0	3.1	1.6
Revenue Passenger-Miles (millions)					
Intercity bus, total	26,400.0[c]	26,900.0[d]	26,500.0[e]	0.0	-1.5
Intercity bus, Class I*	18,300.0	15,890.0	14,170.0[d]	-2.5	-10.8
Number of Revenue Passengers (millions)					
Intercity bus, total	381.0	370.0	365.0	-0.4	-1.4
Intercity bus, Class I*	154.8	111.3	187.6[i]	1.9	68.5
Average Passenger Trip Length (Miles)[3]					
Intercity bus, total	69.1	72.7	n/a	-	-
Intercity bus, Class I*	118.1	142.8	122.0[d]	0.3	-14.6
Average Miles Traveled per Vehicle					
Commercial	28,469.0[g]	31,524.0[g]	32,795.0[g]	1.4	4.0
School and nonrevenue bus	7,178.0	6,870.0	6,532.0	-0.9	-4.9
All buses	11,662.0	11,872.0	11,521.0	-0.1	-3.0
Average Passenger Load Factor (%)					
Intercity bus, Class I*	47.1[a]	43.0[d]	43.4[d]	-0.8	0.9
Number of Fatalities					
School bus related - total	n/a	106.0[h]	126.0[h]	-	18.9
School bus occupants	n/a	9.0	17.0	-	88.9
Other vehicle occupants	n/a	62.0	74.0	-	19.4
Non-occupants	n/a	35.0	35.0	-	0.0
Occupant Fatalities					
All buses, Total	n/a	35.0	53.0	-	51.4
School buses	n/a	9.0	17.0	-	88.9
Cross country	n/a	5.0	9.0	-	9.0
Transit buses	n/a	11.0	4.0	-	-63.6
Other and unknown	n/a	10.0	23.0	-	130.0
Fatalities in Vehicular Accidents[4]					
All buses	n/a	323.0	366.0	-	13.3
Occupant Fatality Rate					
Per 100 million vehicle-miles					
All buses	n/a	0.5	0.8	-	49.1
Per 10,000 registered vehicles					
All buses	n/a	0.6	0.9	-	44.4
Vehicle Involvement Rate					
Per 100 million vehicle-mile					
All buses	n/a	4.4	4.6	-	4.6
Per 10,000 registered vehicles					
All buses	n/a	5.2	5.2	-	0.0

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BUS PROFILE (cont'd)

n/a = not available.

* Effective January 1, 1977, the average annual gross revenue for Class I carriers was increased to $4 million.

** Beginning in 1980, vehicle data based on Highway Performance Monitoring System, thus no comparable 1973 data available.

1 Excludes income taxes.

2 Urban consists of travel on all roads and streets in urban places of 5,000 or greater population.

3 Calculated by dividing revenue passenger-miles by revenue passengers carried.

4 Includes all fatalities in the accident in which the vehicle types listed were involved.

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	Reference Number/Location
a	19) pp. 5, 15
b	21) p.5
c	1) pp. 2, 5
d	1) personal communication
e	21) personal communication
f	39) Table MV-10
g	39) Table VM-1
h	41) personal communication
i	14) personal communication

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TRUCK PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Revenues ($ millions)					
	Local	57,303.0[a]	75,010.0[b]	80,946.0[b]	3.5	7.9
	Intercity					
	ICC-regulated	20,800.0	44,100.0	46,500.0	8.4	5.4
	Non-ICC-regulated	23,848.0	57,682.0	62,333.0	10.1	8.1
	Operating Revenues of Class I Intercity Motor Carriers ($ millions)					
	Freight, intercity, common carriers	14,977.0[c]	27,997.0[d]	29,268.0[d]	6.9	4.5
	Freight, intercity, contract carriers	491.0	1,500.0	1,759.0	13.6	17.3
	Freight, local cartage	704.0	307.0	306.0	-8.0	-0.3
	Trans. for other Classes I and II carriers	144.0	210.0	227.0	4.7	8.1
	Others	159.0	2,232.0	2,340.0	30.9	4.8
	Total	16,478.0	32,246.0	33,899.0	7.5	5.1
	Operating Revenues of Class II Intercity Motor Carriers ($ millions)	14,715.0[n]	34,084.0[n]	35,726.0[n]	9.3	4.8
	Operating Expenses of Class I Intercity Motor Carriers ($ millions)	15,612.0[c]	31,337.0[d]	32,091.0[d]	7.5	2.4
	Operating Expenses of Class II Intercity Motor Carriers ($ millions)	11,632.0[n]	33,629.0[n]	34,946.0[n]	11.6	3.9
II.	**INVENTORY**					
	Number of Truck Registrations					
	Private and commercial	22,175,645.0[e]	33,821,895.0[e]	35,086,197.0[e]	4.7	3.7
	Federal	171,006.0[f]	195,431.0[f]	198,162.0[f]	1.5	1.4
	State, county, municipal	886,221.0	1,235,439.0	1,263,422.0	3.6	2.3
	Total	23,232,872.0[e]	35,252,765.0[e]	36,547,781.0[e]	4.6	3.7
	Total Number of Employees					
	Trucking and trucking terminals	1,095,500.0[g]	1,125,400.0[g]	1,129,800.0[g]	0.3	0.4
	Number of Companies, Class I Intercity Carriers of Property	1,576.0[c]	957.0[d]	923.0[d]	-5.2	-3.6
	Number of Companies, Class II Intercity Carriers of Property	1,476.0[n]	1,303.0[n]	1,248.0[n]	-1.7	-4.2
	Number of Employees, Class I Intercity Carriers of Property	581,369.0[c]	484,607.0[d]	475,700.0[d]	-2.0	-1.8
	Number of Employees, Class II Intercity Carriers of Property	47,879.0[n]	46,141.0[n]	46,381.0[n]	-0.3	0.5
III.	**PERFORMANCE**					
	Vehicle Miles (millions)[2]					
	Urban[3]					
	Interstate urban	n/a	36,115.0[h]	39,003.0[h]	-	8.0
	Other urban	n/a	144,000.0	149,296.0	-	3.7
	All urban	113,154.0[h]	180,115.0	188,299.0	5.2	4.5
	Rural*					
	Interstate rural	119,536.0	41,383.0	42,951.0	-9.7	3.8
	Other arterial rural**		82,079.0	84,058.0	-	2.4
	Other rural	34,457.0	90,642.0	93,206.0	10.5	2.8
	All rural	153,993.0	214,104.0	220,215.0	3.6	2.9
	Total Rural and Urban	n/a	394,219.0	408,514.0	-	3.6
	Average Miles Traveled per Vehicle					
	Single-unit trucks	9,868.0	9,805.0	9,705.0	-0.2	-1.0

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TRUCK PROFILE (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Combination trucks	46,716.0	50,075.0	52,424.0	1.2	4.7
All trucks	11,538.0	11,217.0	11,178.0	-0.3	-0.4
Ton-Miles (millions)					
Intercity	505,000.0[b]	520,000.0[b]	548,000.0[b]	0.8	5.4
Average Fuel Consumption per Vehicle (gallons)					
Single	1,025.0[h]	831.0[h]	818.0[h]	-2.2	-1.6
Combination	8,620.0	9,106.0	9,532.0	1.0	4.7
All trucks	1,361.0	1,122.0	1,118.0	-2.0	0.4
Taxes Assignable to Operations ($ millions)					
State highway-user taxes	4,568.2[i]	7,460.6[i]	8,046.0[i]	5.8	7.9
Federal highway-user taxes	2,533.4	3,335.6	3,218.8	2.4	-3.5
Total highway-user taxes	7,101.5	10,796.2	11,264.8	4.7	4.3
Average Length of Haul (statute miles)					
Class I Intercity motor carriers					
Common	276.0[a]	359.9[j]	364.3[j]	2.8	1.4
Total Fatalities, Motor Carriers of Property	3,058.0[k]	2,479.0[l]	2,528.0[l]	-1.9	2.0
Private	n/a	618.0	541.0	-	-12.5
Authorized	n/a	1,712.0	1,851.0	-	8.1
Exempt	n/a	127.0	111.0	-	-12.6
Others	n/a	22.0	25.0	-	13.6
Total Accidents	30,911.0[k]	31,759.0	31,628.0	0.2	-0.4
Private	n/a	6,341.0	5,781.0	-	-8.8
Authorized	n/a	24,493.0	24,849.0	-	1.5
Exempt	n/a	821.0	851.0	-	3.7
Others	n/a	104.0	147.0	-	41.4
Total Injuries	35,245.0[k]	25,779.0	26,692.0	-2.7	3.5
Private	n/a	5,200.0	5,117.0	-	-1.6
Authorized	n/a	19,869.0	20,754.0	-	4.5
Exempt	n/a	616.0	692.0	-	12.3
Others	n/a	94.0	129.0	-	37.2
Property Damage ($ millions)	n/a	321.2	342.9	-	6.8
Private	n/a	73.1	68.0	-	-7.0
Authorized	n/a	236.4	262.6	-	11.1
Exempt	n/a	10.0	10.3	-	3.0
Others	n/a	1.7	2.0	-	17.7
Occupant Fatalities					
All trucks, total	5,710.0[m]	6,568.0[m]	6,415.0[m]	1.2	-2.3
Light trucks	n/a	5,590.0	5,395.0	-	-3.5
Medium trucks	n/a	154.0	172.0	-	11.7
Heavy trucks	n/a	789.0	807.0	-	2.3
Other	n/a	35.0	41.0	-	17.1
Fatalities in Vehicular Accidents[1]					
All trucks, total	n/a	16,257.0	15,343.0	-	-5.6
Light trucks	n/a	10,991.0	10,602.0	-	-3.5
Medium trucks	n/a	769.0	788.0	-	2.5
Heavy trucks	n/a	4,497.0	4,735.0	-	5.3
Occupant Fatality Rate					
Per 100 million vehicle-miles					
Total trucks	2.1	1.7	1.6	-2.8	-5.9
Single-unit trucks	n/a	0.1	0.1	-	20.0
Combination trucks	n/a	1.2	1.1	-	-8.3
Per 10,000 registered vehicles					
Total trucks	2.5	1.9	1.8	-3.2	-5.3
Single-unit trucks	n/a	0.1	0.1	-	0.0
Combination trucks	n/a	6.0	6.0	-	0.0

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TRUCK PROFILE (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Vehicle Involvement Rate					
Per 100 million vehicle-miles					
Total trucks	n/a	4.5	3.7	-	-17.8
Single-unit trucks	n/a	0.3	0.3	-	3.7
Combination trucks	n/a	5.8	5.7	-	-1.7
Per 10,000 registered vehicles					
Total trucks	n/a	4.2	4.1	-	-2.4
Single-unit trucks	n/a	0.3	0.3	-	0.0
Combination trucks	n/a	29.0	30.0	-	3.5

* In 1973, interstate rural was categorized as main rural; other rural was categorized as local rural.
** Figure included in Interstate rural.
1 Includes all fatalities in the accident in which the vehicle types listed were involved.
2 1982/1983 data reflect changes in reporting methods by FHWA and may vary from previous years.
3 Urban consists of travel on all roads and streets in urban places of 5,000 or greater population.

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	References Number/Location
a	19) p. 4
b	21) pp. 4, 6
c	13) Appendix E, Table 10, 88th
d	13) Appendix E, Table 6, 98th
e	39) Table MV-1
f	39) Table MV-9
g	34) SIC 421, 3
h	39) Table VM-1
i	3) p. 9
j	4) personal communication
k	42) p. 10
l	38) p. 22
m	41) personal communication
n	13) personal communication

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LOCAL TRANSIT PROFILE*

I. FINANCIAL	1979[1]	1981[2]	1983	1979-1983 Average Annual % Change	1981-1983 % Change
Operating Revenues ($ millions)					
Passenger Revenue					
Single mode motor bus properties	533.4[a]	583.6[b]	460.9[c]	-3.6	-11.1
All properties	2,152.6[d]	2,975.6[e]	3,182.0[f]	10.3	3.4
Federal Cash Grants and Reimbursements					
Single mode motor bus properties	316.6[a]	294.1[b]	182.7[c]	-12.8	-21.2
All properties	1,177.3[d]	929.0[e]	891.7[f]	-6.7	-2.0
Total Operating Revenues					
Single mode motor bus properties	1,559.6[a]	1,547.9[b]	1,405.2[c]	-2.6	-4.7
All properties	5,771.0[d]	7,552.2[e]	8,741.7[f]	10.9	7.6
Operating Expenses ($ millions)					
All Systems					
Motor Bus					
Vehicle operations	2,236.3[g]	2,886.6[h]	3,035.4[i]	7.9	2.6
Vehicle maintenance	771.4	1,018.8	1,153.4	10.6	6.4
Other	700.9	950.8	959.4	8.2	0.5
Total expenses**	3,708.6	4,851.4	5,242.5	9.0	4.0
Rail Rapid					
Vehicle operations	466.8	600.0	663.6	9.2	5.2
Vehicle maintenance	247.0	375.2	441.6	15.6	8.5
Other	792.1	979.2	1,127.6	9.2	7.3
Total expenses**	1,505.9	1,954.4	2,241.8	10.5	7.1
Streetcar					
Vehicle operations	36.2	40.3	47.0	6.7	8.0
Vehicle maintenance	24.5	29.7	30.3	5.5	1.0
Other	36.7	41.3	42.7	3.9	1.7
Total expenses**	97.4	111.2	119.9	5.3	3.8
Trolley Bus					
Vehicle operations	25.9	40.2	46.3	15.6	7.3
Vehicle maintenance	6.0	11.4	14.4	24.5	12.4
Other	9.9	14.6	19.7	18.8	16.2
Total expenses**	41.9	66.2	80.5	17.7	10.3
Demand Response					
Vehicle operations	15.0	31.1	38.0	26.2	10.5
Vehicle maintenance	3.7	8.0	10.0	28.2	11.8
Other	22.1	44.0	14.9	-9.4	-41.8
Total expenses**	40.7	83.1	125.6	32.5	22.9
Ferryboat					
Vehicle operations	4.4	6.0	49.8	83.4	188.1
Vehicle maintenance	1.9	2.0	13.4	63.0	158.8
Other	2.3	33.7	18.8	69.1	-25.3
Total expenses**	8.5	41.7	85.5	78.1	43.2
Commuter Rail					
Vehicle operations	n/a	n/a	4.5	-	-
Vehicle maintenance	n/a	n/a	6.2	-	-
Other	n/a	n/a	132.6	-	-
Total expenses**	n/a	n/a	410.7	-	-
Other					
Vehicle operations	0.4	6.9	1.8	45.7	-48.9
Vehicle maintenance	0.1	1.6	1.4	93.4	-6.5
Other	58.3	5.5	2.1	-56.4	-38.2
Total expenses**	58.8	14.0	5.3	-45.2	-38.5
Total All Modes					
Vehicle operations	2,785.5	3,610.9	3,891.4	8.7	3.8
Vehicle maintenance	1,054.1	1,445.8	1,673.7	12.3	7.6
Other	1,622.1	2,065.4	2,318.1	9.3	5.9
Total expenses**	5,461.7	7,122.0	8,368.6	11.3	8.4

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LOCAL TRANSIT PROFILE* (cont'd)

	1979[1]	1981[2]	1983	1979-1983 Average Annual % Change	1981-1983 % Change
II. INVENTORY					
Number of Systems					
Single motor bus properties	219.0[a]	174.0[b]	165.0[c]	-6.8	-2.3
All properties	321.0[d]	336.0[e]	435.0[f]	6.9	13.9
Motor bus	304.0[j]	311.0[h]	364.0[h]	4.6	8.2
Rail rapid	9.0	9.0	10.0	2.7	5.4
Streetcar	7.0	8.0	9.0	6.5	6.1
Trolley bus	6.0	5.0	5.0	-4.5	0.0
Demand response	98.0	147.0	234.0	24.3	26.2
Ferryboat	2.0	3.0	8.0	41.4	63.3
Commuter rail	n/a	n/a	22.0	-	-
Other	9.0	6.0	12.0	7.5	41.4
Number of Vehicles					
All properties*	61,014.0	69,813.0[k]	80,037.0[l]	7.0	7.1
Motor bus	48,781.0	56,109.0	61,669.0	6.0	4.8
Rail rapid	9,509.0	9,615.0	10,084.0	1.5	2.4
Streetcar	884.0	1,089.0	907.0	0.6	-8.7
Trolley bus	721.0	768.0	688.0	-1.2	-5.4
Demand response	1,053.0	1,966.0	2,483.0	23.9	12.4
Ferryboat	10.0	16.0	46.0	46.5	69.6
Commuter rail	n/a	n/a	4,111.0	-	-
Other	56.0	250.0	49.0	-3.3	-55.7
Number of Employees					
All properties*	163,872.3[m]	175,182.5[n]	194,673.6[o]	4.4	5.4
Motor bus	115,543.1	121,565.5	122,307.2	1.4	0.3
Rail rapid	44,478.0	45,210.7	44,942.6	0.3	-0.3
Streetcar	2,181.6	3,237.4	3,273.4	10.7	0.6
Trolley bus	1,408.2	1,753.5	1,956.4	8.6	5.6
Demand response	2,176.0	2,258.4	2,022.7	-1.8	-5.4
Ferryboat	227.7	848.0	2,011.7[p]	72.4	54.0
Commuter rail	n/a	n/a	18,091.5*	-	-
Other	21.0	309.0	68.1*	-34.2	-53.1
III. PERFORMANCE					
Revenue Vehicle-Miles (thousands)					
Motor bus	1,323,741.1[q]	1,384,543.7[r]	1,374,636.1[s]	1.0	-0.4
Rail rapid/Streetcar	73,834.9	81,456.6	72,571.7	-2.1	-5.6
Trolley bus	12,109.4	13,544.5	14,447.7	4.5	3.3
Demand response	n/a	42,281.7	30,391.9	-	-15.2
Ferryboat	144.7	274.1	908.7	58.3	82.1
Commuter rail	n/a	n/a	25,288.3	-	-
Total all modes*	1,409,830.1	1,522,100.6	1,518,244.4	1.9	-0.1
Unlinked Passenger Trips (millions)					
Motor bus	5,570.1	5,286.7	5,318.8	1.2	0.3
Rail rapid/Streetcar	1,555.0	1,941.6	2,167.3	8.7	5.7
Trolley bus	136.0	152.8	160.0	4.2	2.3
Demand response	n/a	11.7	7.2	-	-21.6
Ferryboat	4.2	24.9	40.6	76.3	27.7
Commuter rail	n/a	n/a	193.2	-	-
Total all modes*	7,265.3	7,417.7	7,887.1	2.1	13.1
Passenger Miles (millions)					
Motor bus	17,766.7	19,138.7	18,961.2	1.6	-0.5
Rail rapid/Streetcar	3,515.5	8,965.8	10,050.4	30.0	5.9
Trolley bus	218.7	251.5	324.6	10.4	13.6
Demand response	n/a	70.3	47.4	-	-17.9
Ferryboat	16.3	112.6	215.0	90.6	38.2
Commuter rail	n/a	n/a	4,743.2	-	-
Total all modes*	21,517.2	28,538.9	34,419.0	12.5	9.7

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LOCAL TRANSIT PROFILE# (cont'd)

n/a = not available.
* Figures obtained by addition/subtraction and may not appear directly in data source.
** Sum of components may not equal total due to rounding.
\# Data for the period July 1, 1982 through June 30, 1983 was not available due to changes in Section 15 reporting procedures from fiscal year basis to calendar year basis. Beginning in 1983, data is reported on a calendar year basis.
1 Data covers fiscal year between 7/01/79 and 6/30/80.
2 Data covers fiscal year between 7/01/81 and 6/30/82.

Source: The following data references are listed in Appendix A, p. 14.

Source	References Number/Location	Source	Reference Number/Location
a	44) Table 001.2.1	j	44) Table 001.17.1
b	45) Table 002 02.1	k	45) Table 002.17.1
c	46) Table 2.01.1	l	46) Table 2.14
d	44) Table 002.2.1	m	44) Table 001.14.1
e	45) Table 002.02.2	n	45) Table 002.14.1
f	46) Table 2.01.2	o	46) Table 2.12
g	44) Table 001.07.1	p	46) Table 3.14
h	45) Table 002.07.1	q	44) Tables 001.15.1 and 001.16.1
i	46) Table 2.06	r	45) Table 002.15.1
		s	46) Table 2.13

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WATER TRANSPORT PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Operating Revenues ($ millions)					
	Domestic Freight*	2,267.0[a]	6,922.0[b]	7,372.0[b]	12.5	6.5
	Coastal waterways	890.0	3,545.0	3,791.0	15.6	6.9
	Inland waterways	655.0	1,823.0	1,763.0	10.4	-3.3
	Great Lakes	286.0	335.0	660.0	8.7	97.0
	Locks, channels, etc.	436.0	1,219.0	1,158.0	10.3	-5.0
	International Freight	4,329.0	8,097.0	8,545.0	7.0	5.5
	Domestic passengers, intercity	19.0	20.0	20.0	0.5	0.0
	International passengers[1]	284.0	388.0	403.0	3.6	3.9
	Total Passengers*	303.0	408.0	423.0	3.4	3.7
	Revenues of U.S. Commercial Fishing Fleet U.S. Commercial Landings ($ millions)	937.0[c]	2,390.0[c]	2,355.0[c]	9.7	-1.5
II.	**INVENTORY**					
	Number of Companies, Class A & B Carriers Inland and Coastal Waterways	77.0[d]	265.0[e]	275.0[f]	13.6	3.8
	Number of Companies, Maritime Carriers	17.0	6.0	6.0	-10.0	0.0
	Number of Employees					
	Ships, boat building, and repairing	199,200.0[g]	209,600.0[g]	188,500.0[g]	-0.6	-10.1
	Water transportation	200,600.0	201,900.0	194,100.0	-0.3	-3.9
	Number of Employees[2]					
	Passenger/combo	798.0[j]	836.0[j]	739.0[j]	-0.8	-11.6
	Cargo	14,775.0	8,004.0	7,192.0	-7.0	-10.1
	Tankers	9,754.0	7,196.0	6,285.0	-4.3	-12.7
	Total	25,327.0	16,036.0	14,216.0	-5.6	-11.4
	Mileage of Commercially Navigable Inland Waterways	25,543.0[k]	25,543.0[k]	25,543.0[k]	0.0	0.0
	Number of Vessels					
	Total non-self-propelled	28,431.0	42,079.0	n/a	-	-
	Dry cargo barges and scows	18,804.0	29,479.0	n/a	-	-
	Tank barges	3,313.0	4,413.0	n/a	-	-
	Railroad car floats	128.0	60.0	n/a	-	-
	Total self-propelled	6,186.0	7,631.0	n/a	-	-
	Dry cargo/passenger	1,748.0	2,327.0	n/a	-	-
	Ferries, railroad car	21.0	78.0	n/a	-	-
	Tankers	343.0	333.0	n/a	-	-
	Towboats/tugs	4,064.0	4,890.0	n/a	-	-
	Sailing vessels	10.0	3.0	n/a	-	-
	U.S. Merchant Marine (over 1,000 gross tons)					
	Total U.S. Flag	1,016.0[j]	832.0[j]	788.0[j]	-2.5	-5.3
	Passenger/cargo	120.0	55.0	38.0	-10.9	-30.9
	Freighters	458.0	296.0	286.0	-4.6	-3.4
	Bulk carriers	26.0	21.0	20.0	-2.6	-4.8
	Tankers	274.0	282.0	262.0	-0.5	-7.1
	Intermodal	138.0	150.0	151.0	0.9	0.7
	Tug/barge	n/a	15.0	18.0	-	20.0
	LNG	n/a	13.0	13.0	-	0.0
	Privately Owned	596.0	573.0	538.0	-1.0	-6.1
	Government Owned	420.0	259.0	250.0	-5.1	-3.5
	Number of Recreational Boats (millions)	9.6[i]	14.9[i]	15.3[i]	4.8	2.7

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WATER TRANSPORT PROFILE (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
III. PERFORMANCE					
Ton-Miles (millions)					
Domestic waterfreight					
Coastwise	327,649.0[i]	632,707.0[i]	649,749.0[i]	7.1	2.7
Internal	171,891.0	217,027.0	225,628.0	2.8	4.0
Lakewise	83,765.0	35,623.0	43,088.0	-6.4	21.0
Local	1,386.0	1,112.0	1,100.0	-2.3	-1.1
Total	584,691.0	886,469.0	919,566.0	4.6	3.7
Tons of Freight Hauled (millions)					
Domestic water					
Coastwise	237.0	314.0	313.0	2.8	-0.3
Internal	503.0	509.0	487.0	-0.3	-4.3
Lakewise	157.0	76.0	83.0	-6.2	9.2
Local	93.0	76.0	73.0	-2.4	-3.9
Total	990.0	974.0	957.0	-0.3	-1.7
Exports					
Great Lakes ports*	38.0	36.0	32.0	-1.7	-11.1
Coastal ports	462.0	367.0	331.0	-3.3	-9.8
Total	500.0	403.0	363.0	-3.2	-9.9
Imports					
Great Lakes ports*	28.0	14.0	16.0	-5.4	14.3
Coastal ports	239.0	403.0	372.0	4.5	-7.7
Total	267.0	417.0	388.0	3.8	-7.0
Tons of Freight, Intraterritorial (millions)	4.0	3.0	3.0		0.0
Average Haul, Domestic System (miles-per-ton)					
Coastwise	1,384.0	2,034.0	2,098.0	4.3	3.2
Internal	342.0	438.0	463.0	3.1	5.7
Lakewise	535.0	495.0	516.0	-0.4	4.2
Local	15.0	15.0	15.0	0.0	0.0
Total	591.0	926.0	965.0	5.0	4.2
Cargo Capacity (net tons)					
Total non-self-propelled vessels	28,751,428.0	49,062,247.0	n/a	-	-
Dry cargo barges and scows	21,342,522.0	38,031,076.0	n/a	-	-
Tank barges	7,408,906.0	11,031,171.0	n/a	-	-
Total self-propelled vessels	17,305,547.0	26,277,603.0	n/a	-	-
Dry cargo/passenger	8,523,667.0	7,998,876.0	n/a	-	-
Tankers	8,781,880.0	18,278,727.0	n/a	-	-
Total Number of Marine Accidents in Waterborne Transport[3]	3,226.0[n]	3,174.0[n]	4,704.0[n]	-3.8	48.2
Total Number of Fatalities in Waterborne Transport[4]	128.0[m]	221.0[m]	n/a	-	-
Inspected, total	19.0	160.0	n/a	-	-
Passenger and ferry, large and small	5.0	38.0	n/a	-	-
Freight	11.0	3.0	n/a	-	-
Tank ships and tank barges	3.0	17.0	n/a	-	-
Government owned vessels	n/a	n/a	n/a	-	-
MODU[5]	n/a	85.0	n/a	-	-
Miscellaneous	0.0	17.0	n/a	-	-
Uninspected, total	112.0	61.0	n/a	-	-
Commercial fishing	63.0	34.0	n/a	-	-
Tugs	11.0	9.0	n/a	-	-
Foreign	2.0	25.0	n/a	-	-
Miscellaneous	36.0	18.0	n/a	-	-

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WATER TRANSPORT PROFILE (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Total Number of Injuries in Waterborne Transport[4]	74.0	152.0	n/a	-	-
Inspected, total	32.0	86.0	n/a	-	-
Passenger and ferry, large and small	7.0[o]	34.0	n/a	-	-
Freight	13.0	19.0	n/a	-	-
Tank ships and tank barges	8.0	13.0	n/a	-	-
Government owned vessels	0.0	n/a	n/a	-	-
MODU[5]	n/a	0.0	n/a	-	-
Miscellaneous	3.0	20.0	n/a	-	-
Uninspected, total	43.0	66.0	n/a	-	-
Commercial fishing	9.0	20.0	n/a	-	-
Tugs	8.0	25.0	n/a	-	-
Foreign	9.0	n/a	n/a	-	-
Miscellaneous	17.0	21.0	n/a	-	-
Number of Fatalities in Recreational Boating					
Inboard	123.0[p]	72.0[q]	70.0[q]	-5.5	-2.8
Outboard	939.0	580.0	618.0	-4.1	6.6
Inboard/outboard	44.0	36.0	47.0	0.7	30.6
Jet	n/a	10.0	9.0	-	-10.0
Sail	78.0	52.0	32.0	-8.5	-38.5
Manual (oars, paddle)	348.0	294.0	295.0	-1.6	0.3
Other	63.0	26.0	6.0	-21.0	-76.9
Propulsion Unknown	159.0	108.0	164.0	0.3	51.9
Total	1,754.0	1,178.0	1,241.0	-3.4	5.3

n/a = not available.
* Figures obtained by addition/subtraction and may not appear directly in data source.
1 Revenues paid by American travelers to U.S. and foreign flag carriers.
2 Number of shipboard jobs on oceangoing commerical ships, 1,000 gross tons and over.
3 Casualties to commerical vessels under USCG jurisdiction.
4 Fatalities/injuries are on a calendar year basis due to vessel casualties.
5 Mobile Offshore Drilling Units.

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	Reference Number/Location
a	19) pp. 4, 5
b	21) pp. 4, 5
c	30) Table 1216
d	13) Table 13, Appendix E, 88th
e	13) Table 1, Appendix E, 97th
f	13) Table 1, Appendix E, 98th
g	35) SIC 373 and SIC 44
i	23) Part 5, Sect 3, Tables 1, 1A, 1B, 2, 3
j	40) personal communication
l	24) p. 11
m	25) personal communication
n	42) Charts 32, 38
o	26) p. 20
p	15) p. 74
q	24) p. 22

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RAIL PROFILE
A. CLASS I RAILROADS

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Operating Revenues, Class I Line-Haul Railroads ($ millions)					
	Passenger	258.5[a]	572.9[a]	108.7[a]	-8.3	-81.0
	Freight	13,770.7	25,627.4	25,835.5	6.4	0.8
	Other	655.3	1,303.2	893.9	3.2	-31.4
	Total Operating Revenues	14,770.1	27,503.5	26,729.4	6.1	-2.8
	Operating Expenses, Class I Line-Haul Railroads[2] ($ millions)	13,844.8	26,490.3	24,106.3	.3	.3
II.	**INVENTORY**					
	Number of Vehicles, Class I Railroads					
	Freight-carrying cars[4]	1,710,659.0	1,587,537.0	1,542,278.0	-1.0	-2.9
	Passenger train cars[1]	7,189.0	3,737.0	2,610.0	-9.5	-30.2
	Locomotives	27,790.0	27,073.0	25,838.0	-0.7	-4.6
	Number of Companies, Class I Railroads	67.0[b]	33.0[b]	31.0[b]	-8.0	-12.1
	Number of Employees, Class I Railroads[1]	520,153.0[a]	378,906.0[a]	322,030.0[a]	-4.7	-15.0
	Line Mileage, Class I Line-Haul Railroads	192,813.0	159,123.0	155,879.0[e]	-2.1	-2.0
III.	**PERFORMANCE**					
	Car Mileage, Class I Railroads (millions)					
	Freight	31,248.0	23,952.0	24,358.0[a]	-2.5	1.7
	Passenger	104.0	58.7	19.4[e]	-15.5	-67.0
	Motorcar	91.5	n/a	n/a	-	-
	Total	31,911.0	24,360.3	24,377.4[a]	-2.7	0.1
	Train Mileage, Class I Railroads (millions)					
	Freight	469.0	344.9	345.9	-3.0	0.3
	Passenger	33.0	27.6	n/a	-	-
	Total	502.0	372.5	n/a	-	-
	Locomotive Mileage, Class I Railroads (millions)					
	Freight*	1,659.0	1,252.0[e]	1,242.0[e]	-2.9	-0.8
	Passenger*	21.4	13.1[a]	n/a	-	-
	Total	1,680.2	1,265.0	n/a	-	-
	Revenue Passengers Carried, Class I Railroads (millions)					
	Commutation	185.9[d]	214.0[d]	216.1[d]	1.5	1.0
	Other than Commutation[1]	68.6	87.7	88.0	2.5	0.3
	Total[1]	254.5	301.7	304.1	1.8	0.8
	Revenue Passenger Miles, Class I Railroads (millions)					
	Commutation	4,245.0	5,145.0	5,238.0	2.1	1.8
	Other than Commutation[1]	5,049.0	5,795.0	5,898.0	1.6	1.8
	Total[1]	9,294.0	10,940.0	11,136.0	1.8	1.8

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RAIL PROFILE
A. CLASS I RAILROADS (cont'd)

	1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
Average Passenger Trip Length, Class I Railroads (miles)					
Commutation**	22.8	24.1	24.2	0.6	0.4
Other than Commutation[1]**	61.5	66.1	67.0	0.9	1.4
All Railroads[1]**	36.5	36.3	36.6	0.0	0.8
Revenue Ton-Miles, Class I Railroads (millions)					
Freight	851,808.6*	797,758.6*	828,275.0*	-0.3	3.8
Average Haul, Class I Railroads (miles)					
Freight	556.0	629.0	640.0	1.4	1.8
Number of Fatalities, Railroads and Grade Crossings					
Passengers on trains	6.0[f]	9.0[f]	4.0[f]	-4.0	-55.6
Employees on duty	166.0	78.0	61.0	-9.5	-21.8
Trespassers	592.0	501.0	472.0	-2.2	-5.8
Non-Trespassers	1,225.0	531.0	536.0	-7.9	0.9
Total Railroad and Grade Crossing	1,989.0	1,119.0	1,073.0	-6.0	-4.1
Grade Crossing only*	1,268.0	580.0	542.0	-8.2	-6.6
Railroad only	721.0	539.0	531.0	-3.0	-1.5

n/a = not available

* Figures obtained by addition/subtraction and may not appear directly in data source.

** Figures obtained by dividing Revenue Passengers Carried into Revenue Passenger Miles.

1 Includes Amtrak.

2 Operating expenses include equipment, joint facility rents, leased roads and equipment, and all taxes except Federal income.

3 Operating expenses for 1983 are not comparable with prior years because of the Railroad industry's conversion to a Standard Depreciation accounting system, which, on paper only, has the effect of decreasing annual costs.

4 Includes freight cars owned by all railroads and by private car companies.

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	References Number/Location
a	6) pp. 12, 13, 14, 33, 34, 42, 44, 46, 50, 57
b	6) Preface
c	42) Table 6
d	21) pp. 35-36
e	7) Tables III-E-8, III-E-10
f	15) p.78
g	6) personal communication

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RAIL PROFILE
B. AMTRAK

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Operating Revenues ($ thousands)					
	Passenger	167,314,347.0[a]	406,782.0[a]	450,333.0[b]	-44.7	10.7
	Other	34,779.0	107,601.0	155,156.0[c]	16.1	44.2
	Total Operating Revenues	202,093.0	514,383.0[b]	605,489.0[b]	11.6	17.7
	Operating Expenses	327,091.0	1,133,353.0	1,303,128.0	14.8	15.0
II.	**INVENTORY**					
	Number of Vehicles					
	Passenger Train Cars	1,777.0[a]	1,929.0	1,880.0	0.6	-2.5
	Locomotives	352.0	396.0	388.0	1.0	-2.0
	Number of Companies	1.0	1.0[a]	1.0[a]	0.0	0.0
	Number of Employees	3,501.0	18,101.0	20,384.0[d]	19.3	12.6
	Line Mileage	22,000.0	23,594.0[b]	23,159.0[b]	0.5	-1.8
III.	**PERFORMANCE**					
	Car Mileage (millions)					
	Passenger	240.0[a]	217.0	224.0	-0.7	3.2
	Train Mileage (millions)					
	Passenger	27.0	29.0	29.0	0.7	0.0
	Locomotive Mileage (millions)					
	Passenger	54.0	38.0[a]	41.0[d]	-2.7	7.9
	Revenue Passengers Carried (millions)					
	Non-commutation	17.0[e]	18.0[b]	19.0[b]	1.1	5.6
	Revenue Passenger Miles (millions)					
	Non-commutation	3,807.0[f]	3,993.0	4,227.0	1.1	5.9
	Average Passenger Trip Length (miles)					
	Non-commutation	263.8[a]	220.0	223.0	-1.7	1.4

Source: The following data references are listed in Appendix A, p. 13.

Source	Reference Number/Location
a	8) p. 16
b	6) p. 61
c	6) personal communication
d	5) personal communication
e	21) p. 36
f	21) p. 35

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OIL PIPELINE PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**					
	Operating Revenues ($ millions)					
	FERC-regulated	1,446.0[a]	7,140.0[b]	7,472.0[b]	17.9	4.7
	Non-regulated	265.0	793.0	830.0	12.1	4.7
	Total	1,711.0	7,933.0	8,302.0	17.1	4.7
	Operating Expenses ($ millions)					
	FERC-regulated	844.0[c]	4,978.0[#]	5,119.5[#]	19.8	2.8
II.	**INVENTORY**					
	Number of FERC-regulated Companies	100.0	138.0[d]	142.0[d]	3.6	2.9
	Number of Employees					
	FERC-regulated Companies	14,475.0	21,300.0[e]	20,700.0[e]	3.6	-2.8
	Miles of Pipeline (statute miles)[1]					
	Crude lines					
	Trunk	76,250.0[f]	69,529.0[g]	67,077.0[g]	-1.3	-3.5
	Gathering	69,747.0	53,421.0	47,688.0	-3.7	-10.7
	Products lines	78,038.0	90,727.0	93,054.0	1.8	2.6
	All lines	223,535.0	213,677.0	207,819.0	-0.7	-2.7
III.	**PERFORMANCE**					
	Intercity Ton-Miles (millions)					
	Crude petroleum	302,000.0[h]	335,100.0[h]	332,400.0[h]	1.0	-0.8
	Petroleum products	205,000.0	230,600.0	223,700.0	0.9	-3.0
	Total	507,000.0	565,700.0	556,100.0	0.9	-1.7
	Tons Transported (millions)					
	Crude petroleum	492.4[i]	407.0[i]	408.0[i]	-1.9	0.3
	Petroleum products (delivered from lines)	419.8	490.0	491.0	1.6	0.2
	Total	912.2	897.0	899.0	-0.2	0.2
	Average Length of Haul (statute miles)					
	Crude petroleum	301.0	824.0	815.0	10.5	-1.1
	Petroleum products	340.0	471.0	456.0	3.0	-3.2
	Total	641.0	631.0	619.0	-0.4	-1.9

n/a = not available.
FERC = Federal Energy Regulatory Commision.
# Figures represent balance after deducting income from Operating Revenues, as reported in *Oil & Gas Journal*, 1984.
[1] Regulated plus unregulated mileage of crude oil trunk and gathering lines, plus refined oil trunk lines.
Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	Reference Number/Location
a	19) p. 4
b	21) p. 4
c	13) Appendix E, Table 15
d	12) personal communication
e	35) SIC 46
f	31) Tables 1-2
g	18) p. 21
h	9) Tables 2, 3, 1, respectively
i	21) personal communication

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NATURAL GAS PIPELINE PROFILE

		1973	1982	1983	1973-1983 Average Annual % Change	1982-1983 % Change
I.	**FINANCIAL**[1]					
	Transmission Companies					
	Operating Revenues ($ millions)					
	Total Operating Revenues	7,712.0[a]	55,847.0[b]	53,577.0[b]	21.4	-4.1
	Operating Expenses ($ millions)					
	Operating expenses	5,147.0	49,313.0	46,496.0	24.6	-5.7
	Maintenance expenses	141.0	524.0	523.0	14.0	-0.2
	Total Operating and Maintenance Expenses	5,288.0	49,837.0	47,019.0	24.4	-5.7
	Taxes					
	Federal taxes*	460.0	1,456.0	1,636.0	13.5	12.4
	State and local taxes*	214.0	439.0	546.0	9.8	24.4
	Total taxes	674.0	1,895.0	2,182.0	12.5	15.1
	Total Operating Expenses	6,611.0	53,321.0	50,784.0	22.6	-4.8
	Distribution Companies					
	Operating Revenues ($ millions)					
	Total Operating Revenues	4,243.0[c]	14,653.0[d]	16,743.0[d]	14.7	14.3
	Operating Expenses ($ millions)					
	Operating expenses	2,965.0	12,523.0	14,064.0	16.8	12.3
	Maintenance expenses	131.0	217.0	271.0	7.5	24.9
	Total Operating and Maintenance Expenses	3,096.0	12,740.0	14,335.0	16.6	12.5
	Taxes					
	Federal taxes*	180.0	286.0	417.0	8.8	45.8
	State and local taxes*	345.0	657.0	818.0	9.0	24.5
	Total taxes	515.0	943.0	1,235.0	9.1	30.9
	Total Operating Expenses	3,811.0	13,997.0	15,942.0	15.4	13.9
II.	**INVENTORY**					
	Transmission Companies					
	Number of Employees	36,200.0[e]	48,400.0[f]	46,800.0[f]	2.6	-3.3
	Miles of Transmission Pipeline	263,100.0[g]	271,700.0[h]	273,500.0[g]	0.4	0.7
	Distribution Pipeline Companies					
	Number of Employees	53,500.0[e]	41,700.0[f]	45,800.0[f]	-1.5	9.8
	Miles of Distribution Pipeline	633,800.0[g]	721,200.0[g]	729,700.0[g]	1.4	1.2
	Number of Interstate Natural Gas Pipeline Companies	80.0[h]	97.0[h]	102.0[h]	2.5	5.2
III.	**PERFORMANCE**					
	Total Marketed Production (million cubic feet)	22,647,549.0[i]	18,519,675.0[i]	16,822,144.0[i]	-2.9	-9.2
	Total Delivered to Consumers (million cubic feet)	19,825,271.0[j]	16,295,245.0[j]	15,366,621.0[j]	-2.5	-5.7
	Total Consumed (million cubic feet)	22,049,363.0	18,001,055.0	16,834,914.0	-2.7	-6.5
	Total Gas Used as a Pipeline Fuel (million cubic feet)	728,177.0	596,411.0	490,042.0	-3.9	-17.8
	Total Fatalities*	42.0[k]	31.0[k]	18.0[k]	-8.1	-42.0
	Gas Pipeline	35.0	31.0	12.0	-10.2	-61.3
	Liquid Pipeline	7.0	0.0	6.0	-1.5	0.0

* Figures obtained by addition/subtraction and may not appear directly in data source.

[1] Data for 1982 not directly comparable to previous years due to reclassification of several companies.

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NATURAL GAS PIPELINE PROFILE (cont'd)

Source: The following data references are listed in Appendix A, pp. 13, 14.

Source	Reference Number/Location	Source	Reference Number/Location
a	2) Table 129	g	2) Table 5-1
b	2) Table 12-3	h	33) preface and personal communication
c	2) Table 127	i	32) Table 23
d	2) Table 12-2	j	32) Table 25
e	2) Table 157	k	42) Chart 43B
f	2) Table 17-2		

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SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS BY MODE 1973, 1982 and 1983

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SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS BY MODE, 1973, 1982 and 1983

	1973	1982	1983
AIR CARRIER			
Revenue passenger-miles per capita			
Domestic operations			
Certificated, all services	617.2	921.7	989.5
Scheduled service	597.7	906.7	967.2
Nonscheduled service	19.6	15.0	22.2
International operations			
Certificated, all services	207.7	253.7	267.9
Scheduled service	168.6	213.5	234.4
Nonscheduled service	39.1	40.2	33.5
Revenue passenger-miles per aircraft (millions)			
Domestic and international operations, certificated route air carriers, all services	74.3	103.7	113.3
Revenue ton-miles of freight per capita			
Domestic operations			
Certificated, all services	17.3	19.3	21.6
Scheduled service	17.1	17.4	19.0
Nonscheduled service	0.3	1.9	2.6
International operations			
Certificated, all services	13.4	14.4	14.6
Scheduled service	11.5	12.3	13.3
Nonscheduled service	1.9	2.1	1.3
Revenue miles flown per aircraft	1,088,458.3	1,078,753.8	1,114,667.2
Revenue hours flown per aircraft	2,611.3	2,618.9	2,653.1
Total flight time per capita (minutes)	1.7	1.8	1.8
Average number of certificated aircraft available for service per carrier	48.9	31.7	40.3
GENERAL AVIATION			
U.S. population per eligible aircraft	1,376.6	1,104.9	1,097.0
Total number of hours flown per aircraft	195.4	174.0	165.0
Total flight time per capita (minutes)	8.5	9.4	9.0
AUTOMOBILE			
U.S. population per registered vehicle			
Passenger cars and taxis	2.1	1.9	1.9
Motorcycles	48.8	40.4	41.9

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SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS BY MODE, 1973, 1982 and 1983 (cont'd)

	1973	1982	1983
AUTOMOBILE (cont'd)			
Vehicle-miles of travel per capita, passenger cars, taxis, motorcycles			
Rural			
Interstate rural	1,616.4	432.7	432.8
Other arterial rural	n/a	806.3	812.1
Other rural	485.6	803.8	802.3
All rural	2,101.9	2,042.8	2,039.6
Urban			
Interstate urban	n/a	598.7	647.6
Other urban	n/a	2,499.4	2,586.0
All urban	2,801.8	3,098.1	3,233.6
Total rural and urban	4,903.8	5,141.0	5,273.3
Passenger-miles per capita			
Passenger cars and taxis, total travel	10,584.4	10,773.9	11,488.3
Motorcycles, total travel	101.9	56.9	56.4
Vehicle-miles of travel per vehicle, passenger cars, taxis			
Rural	4,390.4	3,827.9	3,794.4
Urban	5,852.3	5,805.3	6,015.6
Total travel	10,242.7	9,633.3	9,810.0
Passenger-miles per vehicle			
Passenger cars and taxis	22,108.1	20,979.9	21,372.2
Motorcycles	4,986.1	2,298.2	2,363.4
BUS			
U.S. population per intercity bus	10,161.4	10,535.7	9,956.6
Vehicle-miles per capita			
Commercial buses			
Rural			
Interstate rural	n/a	1.4	1.4
Other arterial rural	n/a	2.1	2.0
Other rural	n/a	2.0	2.0
All rural	4.8	5.4	5.4
Urban			
Interstate urban	n/a	1.5	1.6
Other urban	n/a	8.6	8.6
All urban	7.3	10.0	10.3
Total rural and urban	12.1	15.4	15.6

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SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS BY MODE, 1973, 1982 and 1983 (cont'd)

	1973	1982	1983
BUS (cont'd)			
School and non-revenue buses			
Rural			
Interstate rural	n/a	0.8	0.8
Other arterial rural	n/a	2.7	2.6
Other rural	n/a	4.4	4.4
All rural	9.1	7.8	7.8
Urban			
Interstate urban	n/a	0.9	1.0
Other urban	n/a	4.4	4.4
All urban	2.3	5.4	5.4
Total rural and urban	11.4	13.2	13.2
All buses			
Rural			
Interstate rural	n/a	2.2	2.2
Other arterial rural	n/a	4.7	4.7
Other rural	n/a	6.4	6.3
All rural	13.8	13.2	13.2
Urban			
Interstate urban	n/a	2.4	2.6
Other urban	n/a	13.0	13.1
All urban	9.7	15.4	15.7
Total rural and urban	23.5	28.6	28.8
Revenue passenger-miles per capita			
Total intercity bus	124.9	116.1	113.3
Revenue passenger-miles per vehicle			
Total intercity bus (millions)	1.3	1.2	1.1
TRUCK			
Vehicle-miles per capita, all trucks			
Rural			
Interstate rural	565.6	178.5	183.6
Other arterial rural	n/a	354.1	359.3
Other rural	163 0	391.1	398.3
All rural	728.5	923.7	941.2
Urban			
Interstate urban	n/a	155.8	166.7
Other urban	n/a	621.3	638.1
All urban	535.3	777.1	804.8
Total rural and urban	n/a	1,700.7	1,745.9
Vehicle-miles per truck registration			
All rural	6,628.2	6,073.4	6,025.4
All urban	4,870.4	6,033.7	5,152.1
Total rural and urban	n/a	11,182.6	11,177.5
Intercity ton-miles per capita	2,389.3	2,243.4	2,342.1

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SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS BY MODE, 1973, 1982 and 1983 (cont'd)

	1979	1981	1983
LOCAL TRANSIT			
Total vehicle operating expenses (dollars) per vehicle-mile			
Motorbus	2.8	3.5	3.8
Rail rapid/Streetcar	21.7	25.4	32.5
Trolley bus	3.5	4.8	5.6
Demand response	n/a	2.0	4.1
Ferryboat	58.7	152.1	94.0
Total annual passenger-miles per vehicle (thousands)			
Motorbus	364.2	341.1	341.1
Rail rapid/Streetcar	338.3	837.6	914.4
Trolley bus	303.3	327.5	471.8
Demand response	n/a	35.8	19.1
Ferryboat	1.6	7.0	4.8
Commuter Rail	n/a	n/a	1.2
Total Revenue vehicle-miles per vehicle			
Motorbus	27.1	24.7	22.3
Rail rapid/Streetcar	7.1	7.6	6.6
Trolley bus	16.8	17.6	21.0
Demand response	n/a	21.5	12.2
Ferryboat	14.5	17.1	19.8
Commuter Rail	n/a	n/a	6.2

	1973	1982	1983
WATER TRANSIT			
Ton-miles per capita, domestic water			
Coastwise	1,550.2	2,729.7	2,776.9
Internal	813.3	936.3	964.3
Lakewise	396.3	153.7	184.2
Local	6.6	4.8	4.7
Total	2,766.4	3,824.5	3,930.0
Tons of freight hauled per capita, domestic water			
Coastwise	1.1	1.4	1.3
Internal	2.4	2.2	2.0
Lakewise	0.7	0.3	0.3
Local	0.4	0.3	0.3
Total	4.7	4.2	4.1
CLASS I RAILROADS			
Revenue passenger-miles per capita			
Commutation	20.1	22.2	22.4
Other	23.9	25.0	25.2
Total	44.0	47.2	47.6

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SELECTED PASSENGER AND CARGO PERFORMANCE INDICATORS BY MODE, 1973, 1982 and 1983 (cont'd)

	1973	1982	1983
CLASS I RAILROADS (cont'd)			
Revenue passenger-miles per passenger train car (millions)	1.3	2.9	4.3
Revenue ton-miles per capita	4,030.2	3,441.8	3,539.9
Revenue ton-miles per freight car (millions)	0.5	0.5	0.5
OIL PIPELINE			
Intercity ton-miles per mile of line (millions)	2,268.1	2,647.5	2,675.9
Tons of petroleum transported per capita	3.9	3.9	3.9
GAS PIPELINE			
Cubic feet of gas consumed per capita (thousands)	104.3	77.7	72.0
Cubic feet of gas consumed per mile of transmission pipeline (millions)	83.8	66.3	61.6
Cubic feet of gas consumed per mile of distribution pipeline (millions)	34.8	25.0	23.1
Cubic feet of gas produced per capita (thousands)	107.2	79.9	71.9
Cubic feet of gas produced per mile of transmission pipeline (millions)	86.1	68.2	61.5
Cubic feet of gas produced per mile of distribution pipeline (millions)	35.7	25.7	23.1
Operation expense per mile of transmission pipeline	19,562.9	181,498.0	170,003.7
Operation expense per mile of distribution pipeline	4,678.1	17,364.1	19,273.7
Maintenance expense per mile of transmission pipeline	535.9	1,928.6	1,912.3
Maintenance expense per mile of distribution pipeline	206.7	300.9	371.4

n/a = not available

Source: Per capita figures were based on 1973, 1982 and 1983 total resident populations of 211,357,000; 231,786,000; and 233,981,000, respectively (excluding Armed Forces abroad). Data was obtained from the *Statistical Abstract of the United States 1982-83*, Table 11, p 12, for 1973 and *Statistical Abstract of the United States 1985*, Table 11, p. 11, for 1982 and 1983.

All other figures were taken directly from the "Modal Profiles" section of this book.

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TRANSPORTATION TRENDS
1973 - 1983

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Table 1. Average Passenger Revenue per Passenger-Mile, 1973-1983 (cents)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Certificated air carrier[1] (domestic)											
Total	6.63	7.52	7.69	8.16	8.61	8.49	8.96	11.53	12.74	12.02	12.08
(Index)*	(118)	(133)	(136)	(145)	(153)	(151)	(159)	(204)	(226)	(213)	(214)
First class	8.93	9.89	10.58	11.50	12.21	11.97	11.43	14.35	14.14	13.82	14.63
(Index)*	(123)	(137)	(146)	(159)	(169)	(165)	(158)	(198)	(195)	(191)	(202)
Coach plus economy	6.11	6.94	7.05	7.49	7.92	7.81	8.34	10.87	12.37	11.53	11.38
(Index)*	(119)	(135)	(137)	(146)	(154)	(152)	(163)	(212)	(241)	(225)	(222)
Class I rail											
Total	4.88	4.98	4.99	5.65	5.74	5.86	6.02	6.75	8.06	8.47	9.23
(Index)*	(153)	(156)	(156)	(177)	(179)	(183)	(188)	(211)	(252)	(265)	(288)
Commutation	4.29	4.44	4.57	5.04	5.07	5.20	5.37	5.82	6.76	7.06	7.64
(Index)*	(128)	(132)	(132)	(150)	(151)	(155)	(160)	(173)	(201)	(210)	(227)
Other than commutation	6.81	6.75	6.25	7.60	7.85	7.84	7.93	9.39	10.49	11.42	12.35
(Index)*	(218)	(216)	(200)	(243)	(251)	(250)	(253)	(300)	(335)	(365)	(395)
Amtrak	4.40	5.23	5.66	5.56	5.83	6.08	6.59	8.18	9.38[r]	10.19[r]	10.65
(Index)**	(102)	(121)	(131)	(124)	(135)	(141)	(153)	(189)	(217)[r]	(235)[r]	(247)
Class I intercity bus[2]	4.05	4.42	4.85	5.14	5.18	5.62	6.21	7.26	8.35	8.18	8.92
(Index)*	(136)	(148)	(163)	(172)	(174)	(189)	(209)	(244)	(280)	(275)	(280)
Consumer Price Index*	133	148	161	171	182	195	217	247	272	289	298

r = revised.
1 Scheduled service.
2 Regular route intercity service.
* Index = 100 in 1967.
** Amtrak established May 1, 1971, index = 100 in 1971.
Source See Appendix A, p. A-15.

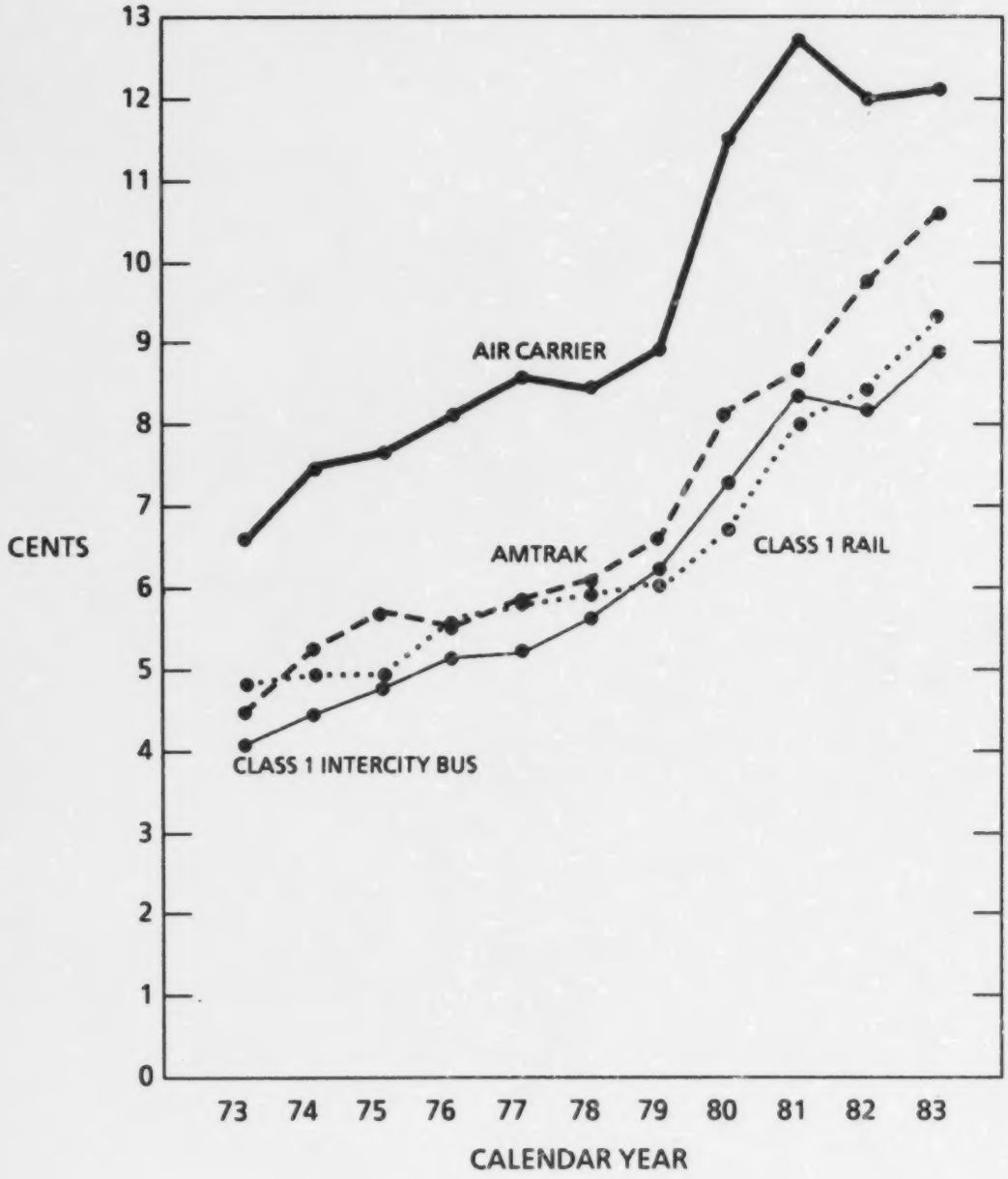

Figure 9. Average Passenger Revenue per Passenger-Mile, 1973-1983

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Table 2. Average Freight Revenue per Ton-Mile, 1973-1983 (cents)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air carrier certificated, domestic operations, scheduled service	23.31	25.92	28.22	31.81	34.20	37.10	41.02	46.29	46.69	46.78	44.87
(Index)*	(117)	(130)	(142)	(160)	(172)	(186)	(206)	(233)	(235)	(235)	(225)
Class I rail	1.62	1.85	2.04	2.19	2.29	2.36	2.60	2.85	3.18	3.21	3.13
(Index)*	(128)	(146)	(161)	(172)	(180)	(186)	(205)	(224)	(250)	(253)	(246)
Class I and II intercity motor carriers of property[1]											
Common	8.31	8.97	9.17	9.94	10.69	10.57	11.59	12.91	13.98	14.09	13.55
(Index)*	(125)	(135)	(138)	(150)	(161)	(159)	(174)	(217)	(210)	(212)	(204)
Contract	6.72	7.04	7.85	8.25	8.80	10.50	11.19	11.78	11.55	12.03	11.41
(Index)*	(91)	(96)	(107)	(112)	(120)	(143)	(152)	(160)	(157)	(163)	(155)
Oil pipelines	0.29	0.32	0.37	0.41	0.49r	0.77r	0.85r	1.00r	1.09r	1.16r	1.23
(Index)*	(112)	(123)	(142)	(158)	(188)r	(296)r	(327)r	(385)r	(419)r	(446)r	(473)
Inland waterway carriers[2]	0.38	0.49	0.52	0.51	0.56	0.62	0.67	0.77e	0.85e	0.84e	0.82e
(Index)*	(131)	(169)	(179)	(176)	(193)	(214)	(231)	(266)	(293)	(290)	(283)
Producer Price Index*	128.0	148.0	161.0r	171.0	182.0	195.0r	217.0r	247.0	273.0r	289.0r	298.0

r = revised.
e = estimate.
* Index = 100 in 1967.
1 Intercity service excluding carriers of household goods.
2 Excludes coastal and Great Lakes carriers (covers Mississippi River and tributaries).

Source: See Appendix A, pp A-15, A-16.

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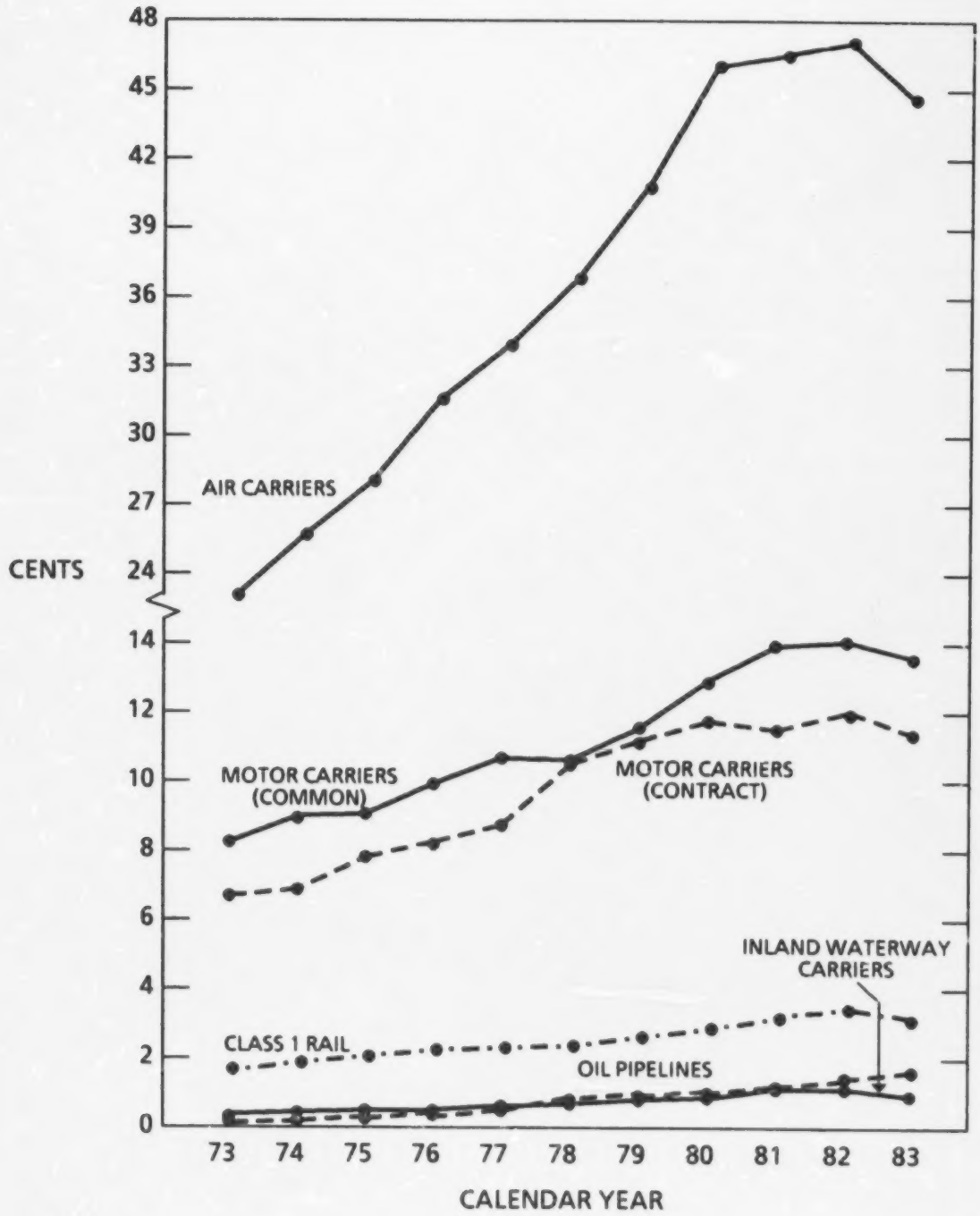

Figure 10. Average Freight Revenue per Ton-Mile, 1973-1983

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Table 3. Average Passenger Fare, 1973-1983
(dollars)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air carrier certificated, domestic operations, scheduled service	45.72	51.43	53.64	57.47	60.67	61.07	63.81	84.55	95.42	92.08	92.51
Class I bus, intercity[1]	4.72	5.13	5.46	5.76	6.47	6.90	7.71	9.07	10.30	10.90	10.08
Local transit											
Railway											
Light rail	0.27	0.28	0.30	0.30	0.30	0.33	0.34	0.38	0.41	0.48r	n/a
Heavy rail	0.31	0.34	0.36	0.46	0.48	0.46	0.46	0.51	0.57	0.69r	n/a
Trolley coach	0.32	0.29	0.28	0.28	0.28	0.28	0.29	0.37	0.40	0.47r	n/a
Motor bus	0.32	0.32	0.32	0.33	0.35	0.36	0.36	0.38	0.40	0.48r	n/a
Total, all modes (linked)	0.32	0.32	0.33	0.36	0.38	0.38	0.38	0.38	0.40r	0.51	n/a
Total, all modes (unlinked)	0.25	0.27	0.26	0.28	0.30	0.30	0.30	0.31	0.34	0.40	0.40
Class I rail											
Commutation	0.95	1.00	1.04	1.15	1.16	1.20	1.25	1.41	1.70	1.83	1.85
Other than commutation	1.54	1.56	1.61	1.73	1.79	1.84	2.21	2.28	2.40	2.71	2.87
Amtrak	9.85	12.20	12.96	12.88	12.90	13.16	14.93	17.72	21.25	22.38	23.78

n/a = not available.
r = revised.
[1] Intercity regular route service.
Source: See Appendix A, p. A-16.

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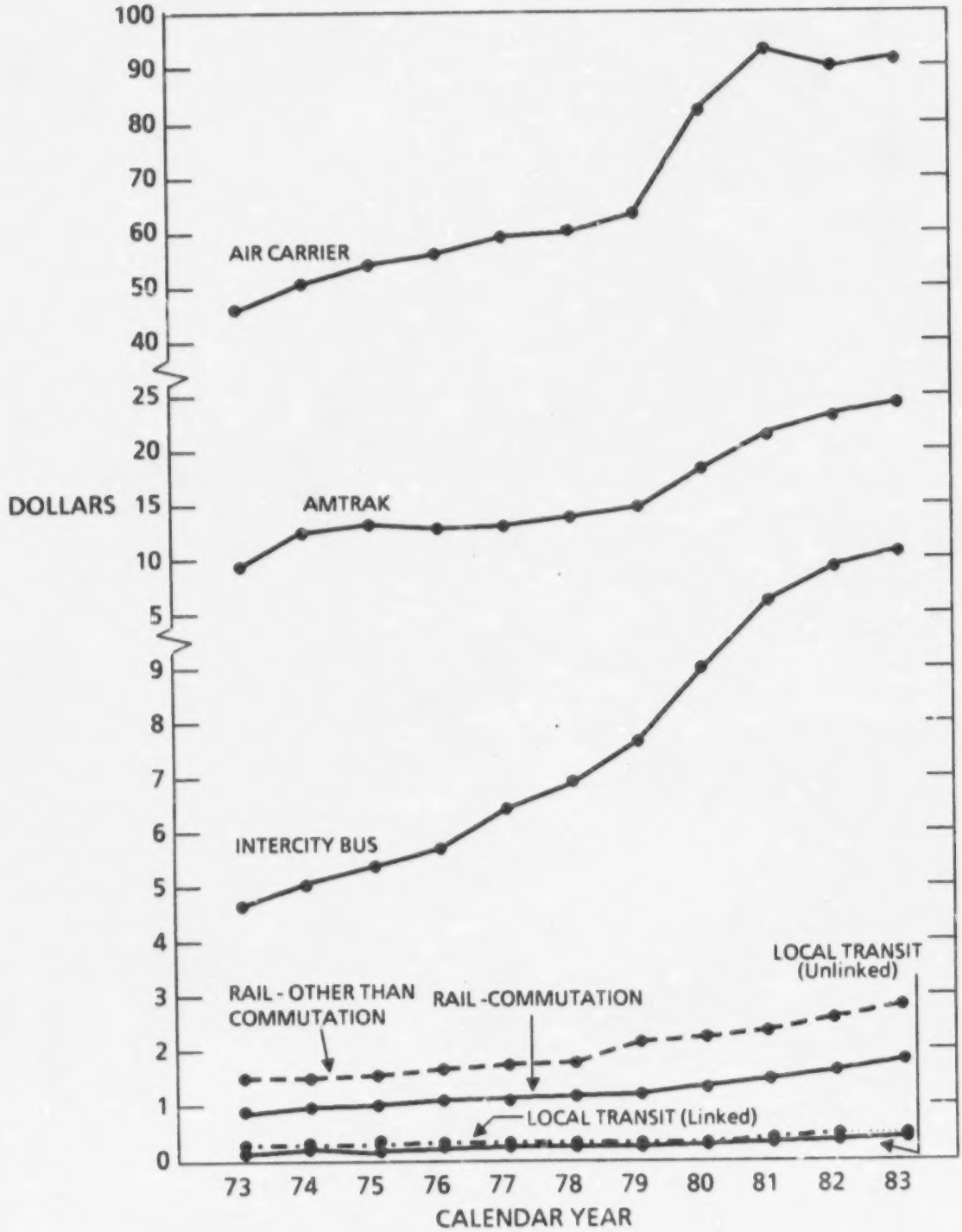

Figure 11. Average Passenger Fare, 1973-1983

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Table 4. Total Operating Revenues, 1973-1983
($ million)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air carrier, domestic and international Certificated, all services	12,419	14,703	15,356	17,503	19,926	22,892	27,227	33,728	28,788	28,728	31,008
Class I bus, intercity	815	933	955	993	983	1,037	1,205	1,394	1,466	1,439	1,276
Local transit*	n/a	n/a	n/a	n/a	n/a	4,862	5,771	6,638	7,552	n/a	8,742
Oil pipeline - Total	1,711	1,878	2,220	2,532	3,209	5,452	6,236	7,062	7,420	7,933	8,302
Regulated	1,446	1,587	1,874	2,137	2,792	4,907	5,585	6,356	6,678	7,140	7,472
Non-Regulated	265	291	346	395	417	545	621	706	742	793	830
Gas pipeline											
Transmission companies	7,172	9,085	11,898	15,416	19,836	22,989	29,919	41,604	50,188	55,847	53,577
Distribution companies	4,243	4,874	5,938	7,375	8,705	9,936	11,767	14,013	12,726	14,653	16,743**
Class I intercity motor carriers of property	16,600	16,704	16,164	18,360	22,520	26,855	29,858	30,338	32,523r	32,246	33,899
Class I rail	14,770	16,923	16,402	18,537	20,091	21,721	25,219	28,103	30,899	27,504	26,729
Amtrak	202	257	253	287	310	321	398	454	512	514	606
Water transportation											
ICC-Regulated carriers, Inland and coastal	618	879	946	1,035	924	867	854	937	1,029	990	1,076
Maritime carriers	1,087	1,478	1,342	1,583	1,643	1,889	2,235	2,340†r	3,133†r	2,817†r	2,653†
Class A freight forwarders	326	362	359	431	615	603	701	721	810e	693e	628e

n/a = not available.
r = revised.
e = estimate.
* Section 15 Reporting System began in 1978, data reported on a fiscal year basis. Data for the period July 1, 1982 through June 30, 1983 was not available due to changes in UMTA Section 15 reporting procedures from a fiscal year basis to a calendar year basis.
** Data not directly comparable to previous years due to reclassification of several companies.
† Figures include only those american flag carriers being subsidized by MARAD.
Source: See Appendix A, pp. A-16, A-17.

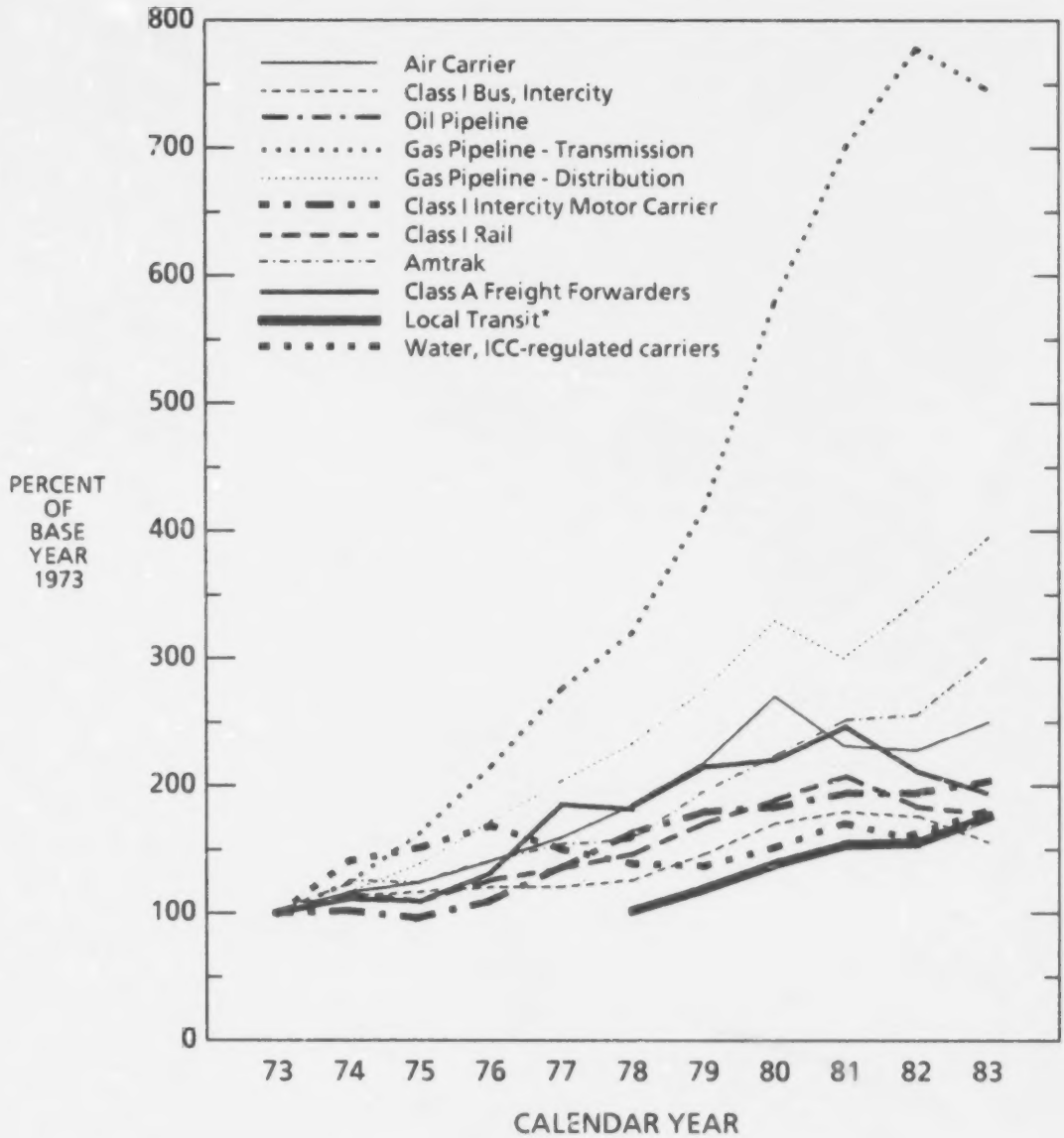

Figure 12. Total Operating Revenues, 1973-1983

* Base year equals 1978.

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Table 5. Vehicle-Miles, 1973-1983
(millions)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air carrier domestic operations, Certificated, all services*	2,098	1,938	1,948	2,052	2,162	2,249	2,471	2,523	2,442	2,442	2,539
Total majors	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2,137	1,953	1,902	1,964
Total nationals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	331	367	388	404
Total large regionals	n/a	n/a	n/a	n/a	n/a	n/a	n/a	57	56	101	140
Total medium regionals[1]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	23	70	69	60
General Aviation[e]	3,687	3,864	3,939	4,172	4,402	4,966	5,471	5,204	5,162	4,625	4,486
Highway											
Passenger car and taxi	1,106,861	995,544	1,028,121	1,074,000	1,118,649	1,171,092[e]	1,140,518	1,111,887	1,190,843	1,179,623[r]	1,221,846
Truck	267,147	266,694	274,454	306,950	329,465	347,906	360,500	384,570	425,127	394,219[r]	408,514
Commercial bus	2,548	2,610	2,755	2,899	2,937	3,085	3,125	3,500	3,541	3,577	3,648
School bus	2,412	2,450	2,500	2,862	2,950	2,991	2,980	2,900	2,960	3,062	3,098
Local transit	n/a	n/a	n/a	n/a	n/a	1,303	1,410	1,532	1,522	n/a	1,525
Class I rail											
Passenger train car	104	101	69	71	68	65	59	60	61	58	19[†]
Freight train car	31,716	31,187	28,068	28,962	29,181	29,418	29,857	29,710	27,968	24,302	24,358
Amtrak	27	29	30	31	33	32	32[r]	29	31[r]	29	29

n/a = not available.
e = estimate.
r = revised.
† Sharp drop because Long Island Railroad is no longer classified as Class I and Conrail has turned commutation over to local authorities.
* All operations other than those operating under 14 CFR 121 and 14 CFR 135.
1 Includes domestic and international services.

Note: Section 15 Reporting System began in 1978, data reported on a fiscal year basis. Data for the period July 1, 1982 through June 30, 1983 was not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.

Source: See Appendix A, pp. A-17, A-18.

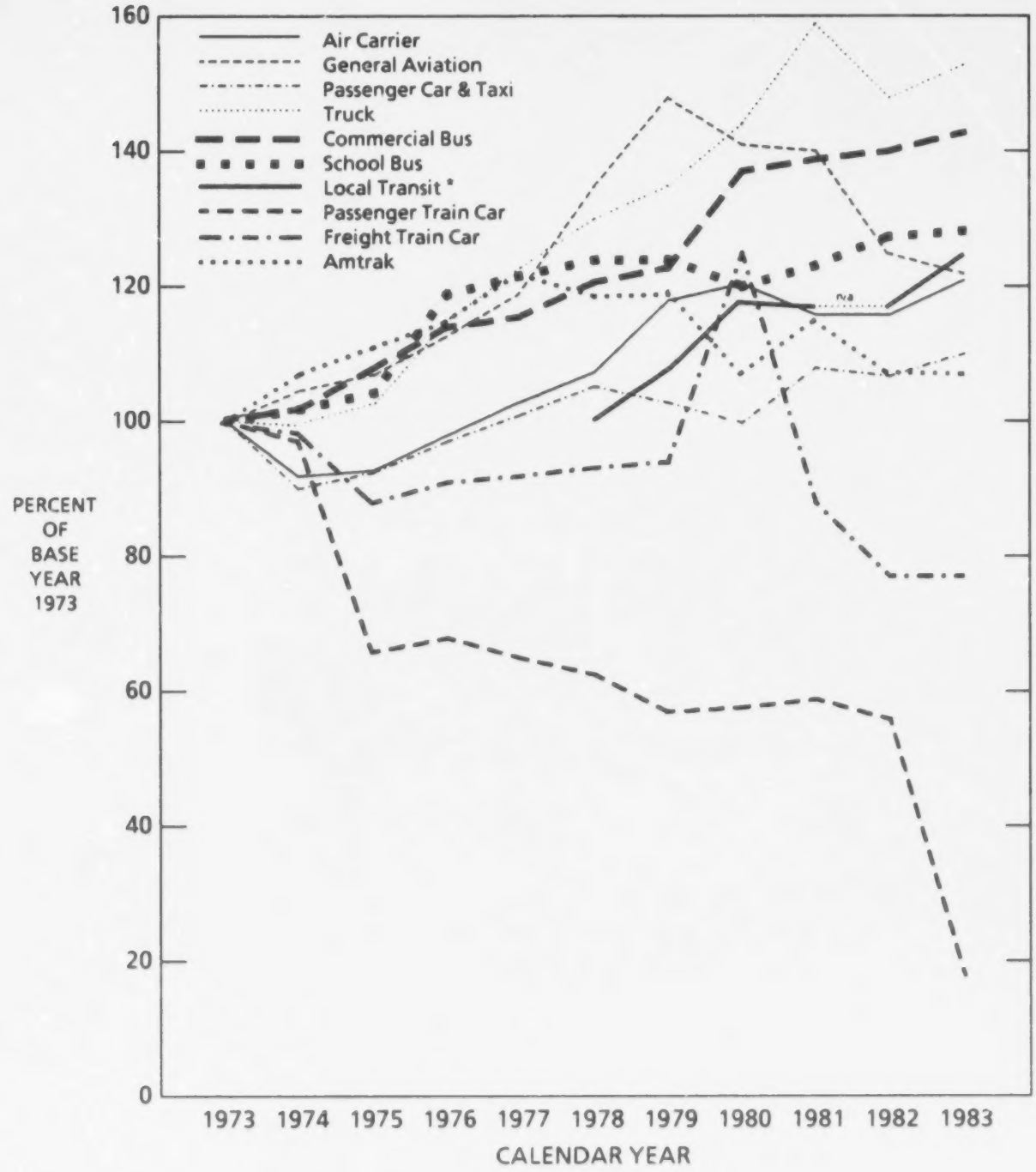

Figure 13. Vehicle-Miles, 1973-1983

* Base Year = 1978
n.a = not available

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Table 6. Passenger-Miles, 1973-1983
(millions)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air carrier, domestic operations											
Certificated, all services	130,450	133,668	135,999	151,379	163,219	187,812	212,701	204,367	201,438	213,631	231,514
Total Majors*	119,215	121,314	123,406	136,972	147,078	168,222	183,500	182,985	173,560	180,229	191,725
Total Nationals**	10,072	11,028	10,962	12,666	14,304	17,503	20,634	20,467	25,149	27,368	29,108
Total Large regionals***	1,163	1,326	1,631	1,741	1,837	2,087	8,567†	712	1,648	4,426	7,765
Total Medium regionals‡***	-	-	-	-	-	-	-	251	1,352	3,888	7,187
General aviation, intercity	10,700	11,200	11,400	12,100	12,800	14,100	15,500	14,700	14,600	13,100	12,700
Highway											
Passenger car and taxi	2,237,094	2,179,586	2,261,866	2,366,676	2,461,028	2,576,402	2,509,140	2,446,151	2,552,639	2,713,133r	2,810,246
Intercity bus	26,400	27,700	25,400	25,100	26,000	25,600	27,700	27,400	26,800	26,900	26,500
Class I Rail											
Commutation	4,064	4,377	4,376	4,339	4,464	4,552	4,719	4,935	5,039	5,145	5,238
Other than commutation	1,238	1,423	1,546	1,422	1,412	1,516	1,613	1,556	1,590	1,623r	1,652
Total	5,302	5,800	5,922	5,761	5,876	6,068	6,332	6,491	6,629	6,768	6,890
Amtrak											
Commutation	182	156	137	130	124	114	115	135	129	121	119
Other than commutation	3,625	4,102	3,616	4,138	4,080	4,040	4,752	4,369	4,633	4,051	4,127
Total	3,807	4,258	3,753	4,268	4,204	4,154	4,876r	4,503r	4,762	4,172	4,246

r = revised.
- = figure is incorporated in with larger regionals.
* Prior to 1980, total majors were labelled trunks.
** Prior to 1980, total nationals were labelled locals.
*** Prior to 1980, large and medium regionals were labelled other.
† 1979 increase is caused by the entry into the commercial air carrier field of many small air carriers following deregulation of CAB entry regulation. Many of these carriers apparently did not survive long, based on the data for the following year, although some of the profitable ones may have moved up to the 'Nationals' category.
‡ Includes domestic and international operations.

Source: See Appendix A, pp. A-18, A-19.

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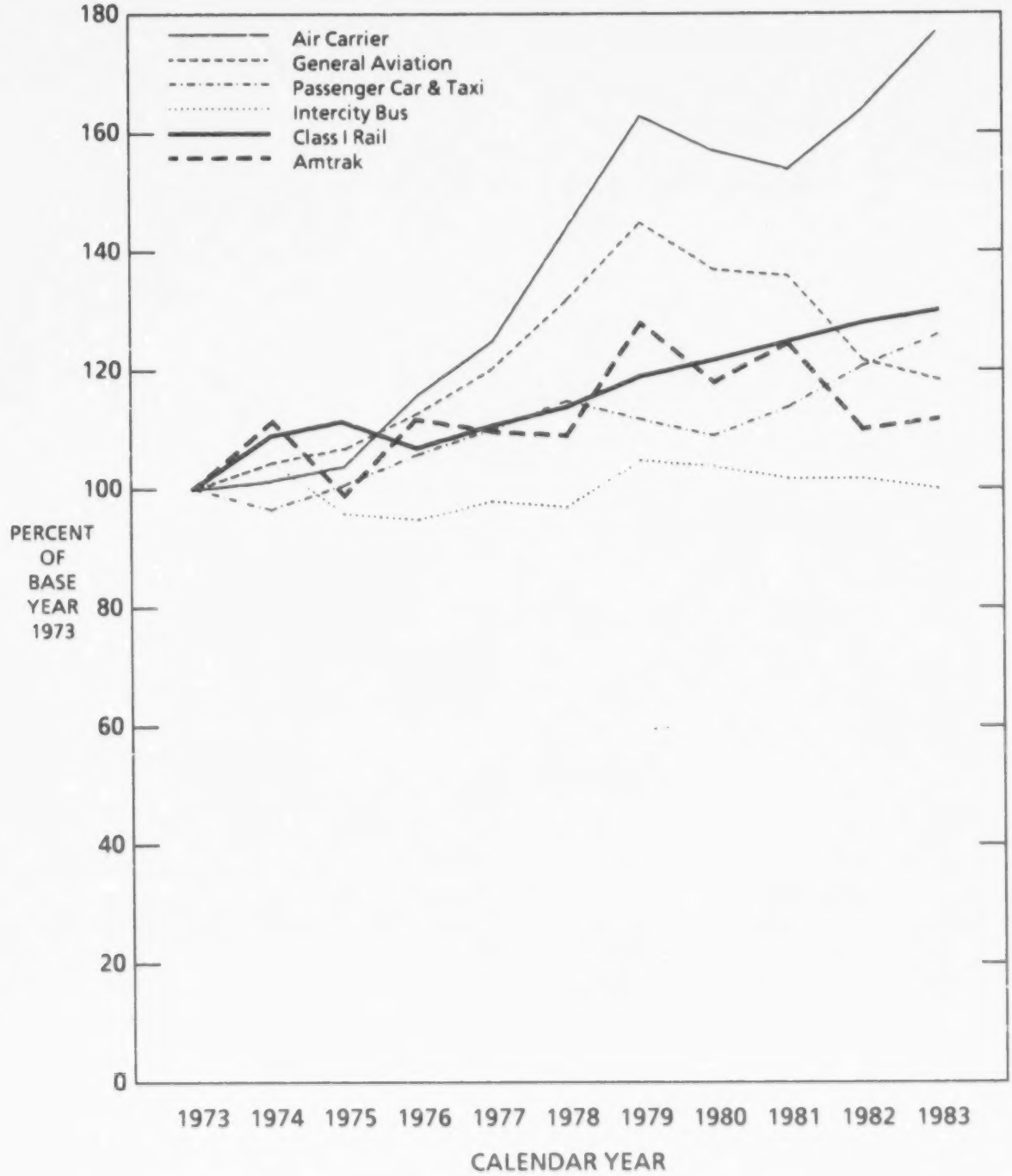

Figure 14. Passenger Miles, 1973-1983

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Table 7. Revenue Ton-Miles of Freight, 1973-1983
(millions)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air Carrier Certificated domestic operations, all services[1]	3,662	3,632	3,470	3,664	3,947	4,371	4,407	4,528	4,657	4,476	5,045
Oil pipeline	507,000	506,000	507,000	515,000	546,000	586,000	608,000	588,000	564,000	566,000r	556,000
Class I rail	851,809	850,961	754,252	794,059	826,292	858,105	913,669r	918,621r	910,169	797,759r	828,275
Motor vehicles, intercity	505,000	495,000	454,000	510,000	555,000	599,000	608,000	555,000	527,000r	520,000r	548,000
Water transport Inland waterways, including Great Lakes	358,222	354,882	342,210	372,865	368,275	409,316	424,569	406,879	410,240	351,280	359,013
Total domestic waterways	584,691	586,345	565,984	591,853	599,000	827,263	828,760	921,836	929,413	886,469	919,566

r = revised.

1 Includes revenue ton-miles of freight, U.S. and foreign mail, and express, as reported on CAB Form 41.

Source: See Appendix A, p. A-19.

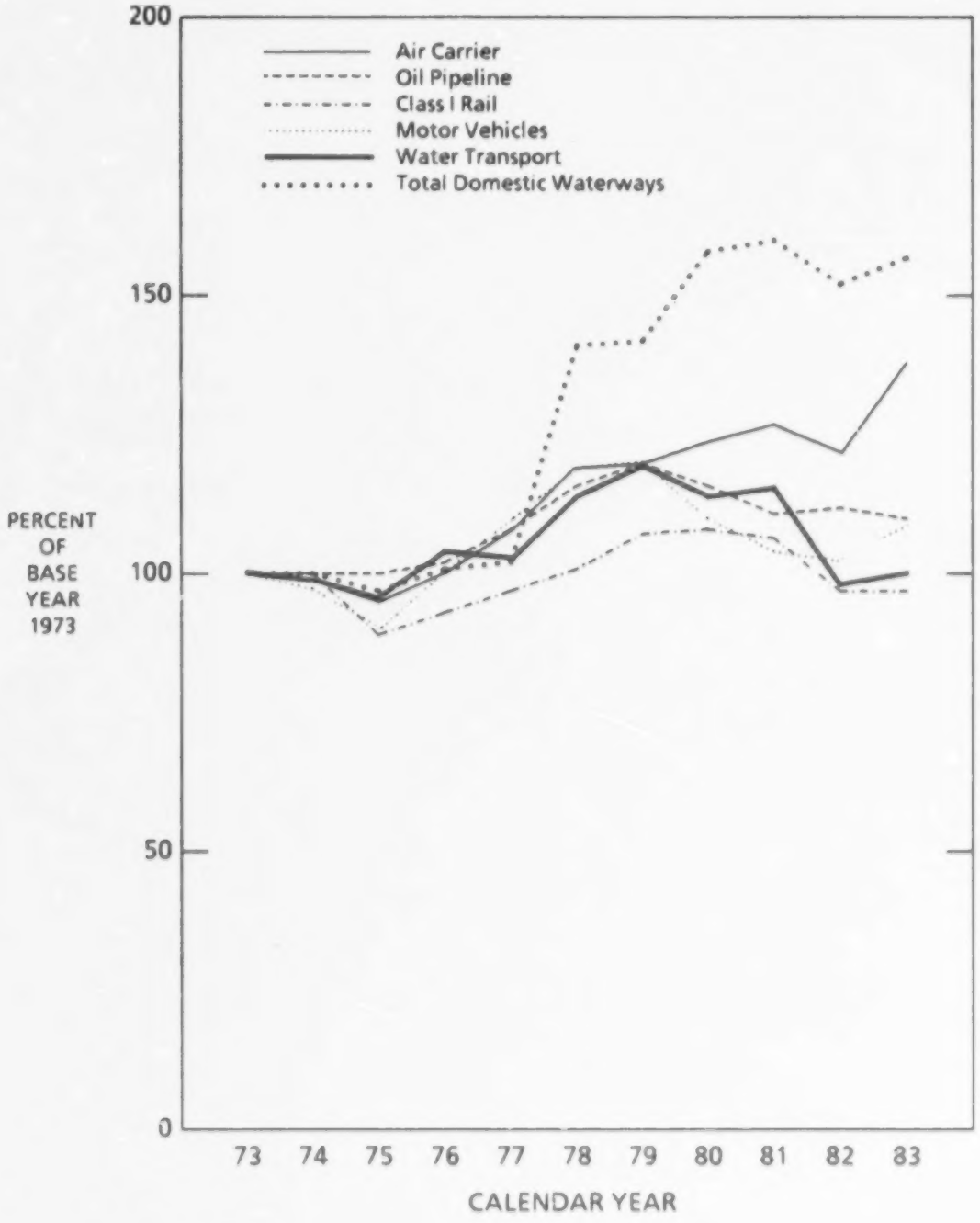

Figure 15. Revenue Ton-Miles of Freight, 1973-1983

Table 8. Basic Intercity Mileage Within the Continental United States, 1973-1983 (statute miles)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Railroads, all line haul	192,813r	192,991r	191,520r	182,395**r	182,380**r	175,912r	169,927r	164,822r	162,160r	159,123r	162,000
Oil pipelines,[1] Total	223,535	224,712	225,889	227,066	220,058	218,165	215,960	218,393	215,041	213,677	207,819
Crude lines											
Trunk	76,250r	76,824r	77,398r	77,972	78,483	75,483	71,876	71,568r	68,486	69,529	67,077
Gathering	69,247r	68,764r	68,281r	67,798	66,580	65,368	58,179	58,263	57,099	53,421	47,688
Product lines	78,038r	79,124r	80,210r	81,296r	74,995	77,314	85,905	88,562	89,456	90,727	93,054
Gas pipeline, Total	962,900	974,100	979,263r	987,700	998,900	1,013,000	1,029,800	1,051,774r	1,069,800	1,083,466r	1,095,118
Distribution mains	633,800	645,600	648,200	659,100	666,900	677,500	688,500	701,800	714,100	720,900	729,728
Transmission pipelines	263,100	262,200	262,600	258,200	260,500	260,600	263,500	266,500	269,500	271,700	273,506
Field and gathering lines	65,900	66,400	68,500	70,300	71,500	74,900	77,800	83,500	86,200	90,500	91,884
Inland waterways	25,543	25,543	25,543	25,543	25,543	25,543	25,543	25,543	25,543	25,543	25,543
Highways*	268,364	267,756	265,905	298,743	301,072	302,254	304,133	300,456	298,256	298,219	300,040
Airways	304,260	307,783	313,178	322,662	327,822	333,734	338,133	341,284	344,578	352,292	355,599

r = revised.
* Highway mileage has been revised to include Federal-Aid primary roads only.
** Partially estimated.
[1] Includes petroleum and other liquid product lines, including gathering lines.

Source: See Appendix A, pp. A-19, A-20.

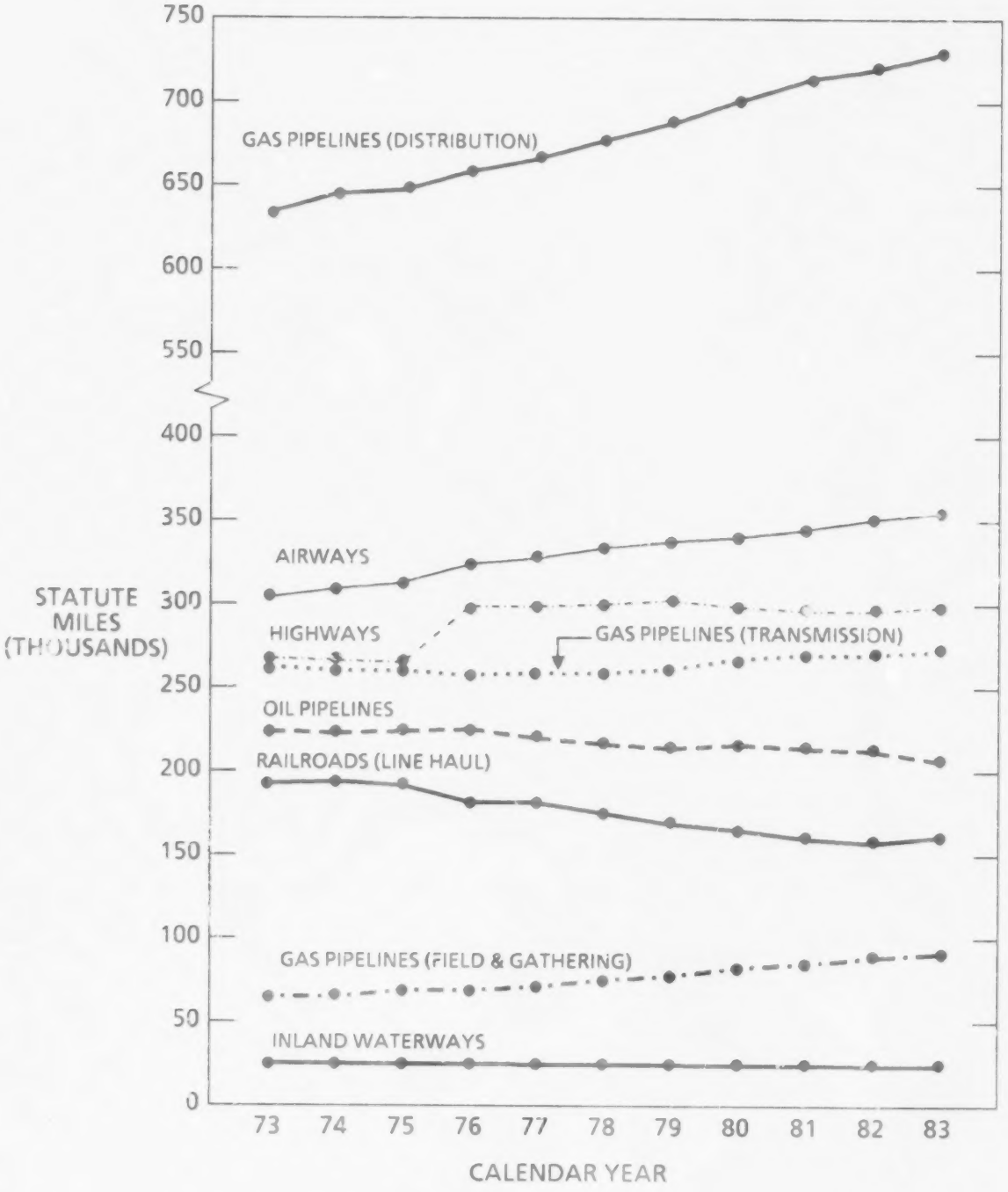

Figure 16. Basic Intercity Mileage Within the Continental United States, 1973-1983

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Table 9. Number of Vehicles, 1973-1983

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air carrier domestic and international Certificated, all services	2,600r	2,513r	2,522r	2,507r	2,543r	2,521r	2,598†r	2,718r	2,763	2,664	2,659
General aviation	153,540	161,502	168,475	178,304	184,294	198,778	210,339	211,045	213,227	209,779	213,293
Motorcycle	4,332,580	4,966,399	4,960 944	4,981,496	5,014,564	5,141,957	5,502,450	5,724,602	5,831,132	5,753,858r	5,585,112
Passenger car & taxi (Thous.)	101,762	104,857	106,713	110,189	113,696	116,575	120,248	121,724	123,462	123,746r	126,728
Intercity bus	20,800	21,000	20,500	20,100	20,100r	20,400r	21,300r	21,400r	21,500	22,000r	23,500
Local transit											
Motorbus	48,286	48,700	50,811	52,382	51,968	52,866	54,490	59,411	60,393	62,114	62,093
Subway & elevated	9,387	9,403	9,608	9,714	9,639	9,567	9,522	9,693	9,801	9,867	9,943
Surface rail	1,123	1,068	1,061	963	992	944	959	1,103	1,075	1,016	1,013
Trolley coach	1794	718	703	685	645	593	725	823	751	763	686
Total	59,590	59,889	62,226**	63,787**	63,287**	64,013**	65,696**	70,983**	72,063**	73,803**	73,782**
Class I Rail											
Freight cars	1,356,944	1,339,223	1,314,135	1,268,735	1,232,080	1,166,517	1,118,381	1,101,343	1,072,047	1,006,276	966,657
Locomotives	27,453	27,627	27,846	27,215	27,283	26,960	27,043	27,977	27,423	26,797	25,707
Passenger cars & pullman	5,360	4,933	4,484	3,253	3,176	2,242	2,215	2,219	2,115	1,808	730
Total	1,389,686	1,371,783	1,346,465	1,299,203	1,262,539	1,195,776	1,146,639	1,131,539	1,101,585	1,034,481	993,094
Amtrak											
Passenger cars & pullman	1,777	1,908	1,913	2,062	2,154	2,084	2,026	2,128	1,830	1,929	1,880
Locomotives	352	457	455	379	369	441	437	448	398	396r	388
Truck											
Combinations	1,028,000	1,085,000	1,131,000	1,224,810	1,264,091	1,366,582	1,339,000	1,405,000	1,255,500	1,232,156	1,259,528
Single unit	22,205,000	23,545,200	24,644,700	26,554,071	28,298,394	30,366,022	32,010,74[illegible]	32,232,241	33,195,610	33,911,682	35,288,253
Total	23,233,000	24,630,200	25,775,700	27,778,881	29,562,485	31,702,604	33,349,742	33,637,241	34,451,110	35,143,838r	36,547,781
Water transport											
Total inland water vessels	26,181	27,182	29,510	31,027	33,149	32,428	33,984	36,285	*	38,872r	*
Non-self-propelled vessels											
Dry cargo barges & scows	18,804	19,772	21,876	23,164	24,937	24,037	25,420	27,426	*	29,479	*
Tank barges	3,313	3,375	3,534	3,623	3,770	3,946	4,000	4,166	*	4,413r	*
Total	22,117	23,147	25,410	26,787	28,770	28,048	29,492	31,592	*	33,892r	*
Self propelled vessels towboats & tugs	4,064	4,035	4,100	4,240	4,379	4,380	4,492	4,693	*	4,890	*
Oceangoing steam & motor ships of 1,000 gross tons & over	1,016	922	857	842	840	879	865	864	853	832	788
Total	27,197	28,104	30,367	31,869	33,989	22,207	34,849	37,149	n/a	39,704	n/a

n/a = not available.
r = revised.
† Figure as of June, 1979. All other figures are as of December of their respective year.
* Change in collection methods, see Appendix A, p. A-21.
** Includes cable cars and inclined plane cars, excludes PRT transit vehicles.

Source: See Appendix A, pp. A-20, A-21.

Table 10. Number of New Vehicles Purchased, By Mode, 1973-1983

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Air Carrier (all services)											
Fixed-Wing	294	332	315	222	155	241	376	387	387	232	262
General Aviation	13,671	14,261r	14,248r	15,820r	17,175r	18,049r	16,883r	11,777r	10,114r	4,055r	2,784
Passenger car and taxi**	11,439,000	8,871,000	8,640,000	10,110,000	11,185,000	11,312,000	10,558,800	8,980,000	8,535,000	7,980,000	9,179,000
Motorcycles	1,255,000	1,580,000	990,000	740,000	970,000	1,015,000	1,010,000	1,250,000	1,350,000	1,290,000r	1,040,000
Mopeds	n/a	13,000	32,000	78,000	190,000	350,000	130,000	180,000	67,000	18,000	22,000
Bicycles	15,200,000	14,100,000	7,300,000	8,100,000	9,400,000	9,400,000	10,800,000	9,000,000	8,900,000	6,800,000	9,000,000
Truck (domestic)	2,915,000	2,511,000	2,351,000	3,040,000	3,500,600	6,920,860	3,120,159	2,231,500	1,972,200	2,247,800	2,709,400
Intercity bus (Class I)	833	6[illegible]	733	619*	709	635	680	800	2,200†	2,000†	476
Local transit											
Motor bus	3,200	4,818	5,261	4,475	2,437	3,805	3,440	4,572	4,059	2,962r	4,081
Light rail	0	0	0	4	62	35	70	32	188r	10r	30
Heavy rail	238	92	127	472	506	172	94	130	274r	126r	88
Trolley coach	1	0	1	260	198	0	141	98	0	0	0
Total	3,439	4,910	5,389	5,481	3,203	4,012	3,745	4,832	4,523r	3,098r	4,199
Class I railroad											
Freight cars	34,171	36,315	41,692	30,836	27,098	28,003	28,646	31,193	20,900	5,765	3,496
Locomotives	1,165	1,018	772	438	820	1,214	1,709	1,466	470	323	200
Pass. car and pullman	73	85	156	44	20	42	43	44	0	1	n/a
Total	35,419	37,418	42,620	31,318	27,938	29,259	30,392	32,703	21,370	6,089	3,696
Amtrak											
Pass. car and pullman	10	0	109	305	133	1	56	108	119	101	31
Locomotives	67	362	30	58	4	75	39	17	43	35	0
Total	77	362	139	363	137	76	95	125	162	136	31
Water											
Merchant vessels	30	20	15	16	18	14	15	23	12	11	14
Gross tonnage	987,000	697,000	452,000	616,000	920,198	911,791	1,148,530	693,200	427,979	342,000	409,100

n/a = not available.
r = revised
* Change in Class I definition.
** Includes domestic and imported vehicles.
† 1981 and 1982 data includes all carriers.

Source: See Appendix A, pp. A-21, A-22.

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Table 11. Alcohol Involvement by Vehicle Body Types 1982-1983

	Passenger Cars		Motor-cycles		Light Trucks & Vans		Medium & Heavy Trucks		Other Vehicles		Other Non-occupant		Pedes-trians		Pedal-cyclists	
	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983
Number of Accidents in which one or more vehicles/persons were involved	27,292	26,695	4,302	4,203	9,503	9,324	4,355	4,617	1,663	2,766	n/a	174	7,183	6,752	853	844
Number of fatally injured persons[1]	23,098	22,975	4,383	4,264	5,553	5,379	925	972	1,026	1,250	n/a	81	7,274	6,824	851	839
Under 14 years old	989	1,080	89	124	225	279	22	32	73	75	n/a	19	1,036	1,077	321	400
Over 14 years old	22,033	21,838	4,285	4,134	5,315	5,089	895	936	915	1,171	n/a	61	6,106	5,643	525	435
The following is based on data from the 15 states* that routinely test fatalities																
Percent of Accidents with any Alcohol Involvement[2]	55.7	54.6	57.6	59.7	57.3	55.1	34.5	59.9	50.8	54.6	n/a	56.3	57.9	48.5	29.2	29.9
Percent of tested fatally injured drivers/pedestrians[3]																
Alcohol Involved[4]	57.4	55.5	59.3	59.7	71.1	62.6	23.3	42.9	64.9	65.9	n/a	n/a	50.2	49.2	28.9	25.2
Impaired[5]	52.0	51.3	51.8	53.6	65.8	59.5	21.1	38.7	59.7	62.4	n/a	n/a	46.3	45.8	22.9	22.3
Intoxicated[6]	47.7	45.2	43.3	45.2	61.8	55.3	19.5	37.8	57.4	56.6	n/a	n/a	42.7	40.4	16.9	19.4

n/a = not available

* Includes the fifteen states (California, Colorado, Delaware, District of Columbia, Hawaii, Nevada, New Hampshire, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, Virginia, Washington and Wisconsin) that routinely test fatally injured drivers for the presence of alcohol. Legally intoxicating blood alcohol levels are 0.10 percent in most states.

1 191 Persons with Unknown Age are included in these totals.

2 Either a positive alcohol test result or an indication from police of any alcohol involvement.

3 Pedestrians and pedalcyclists over fourteen only.

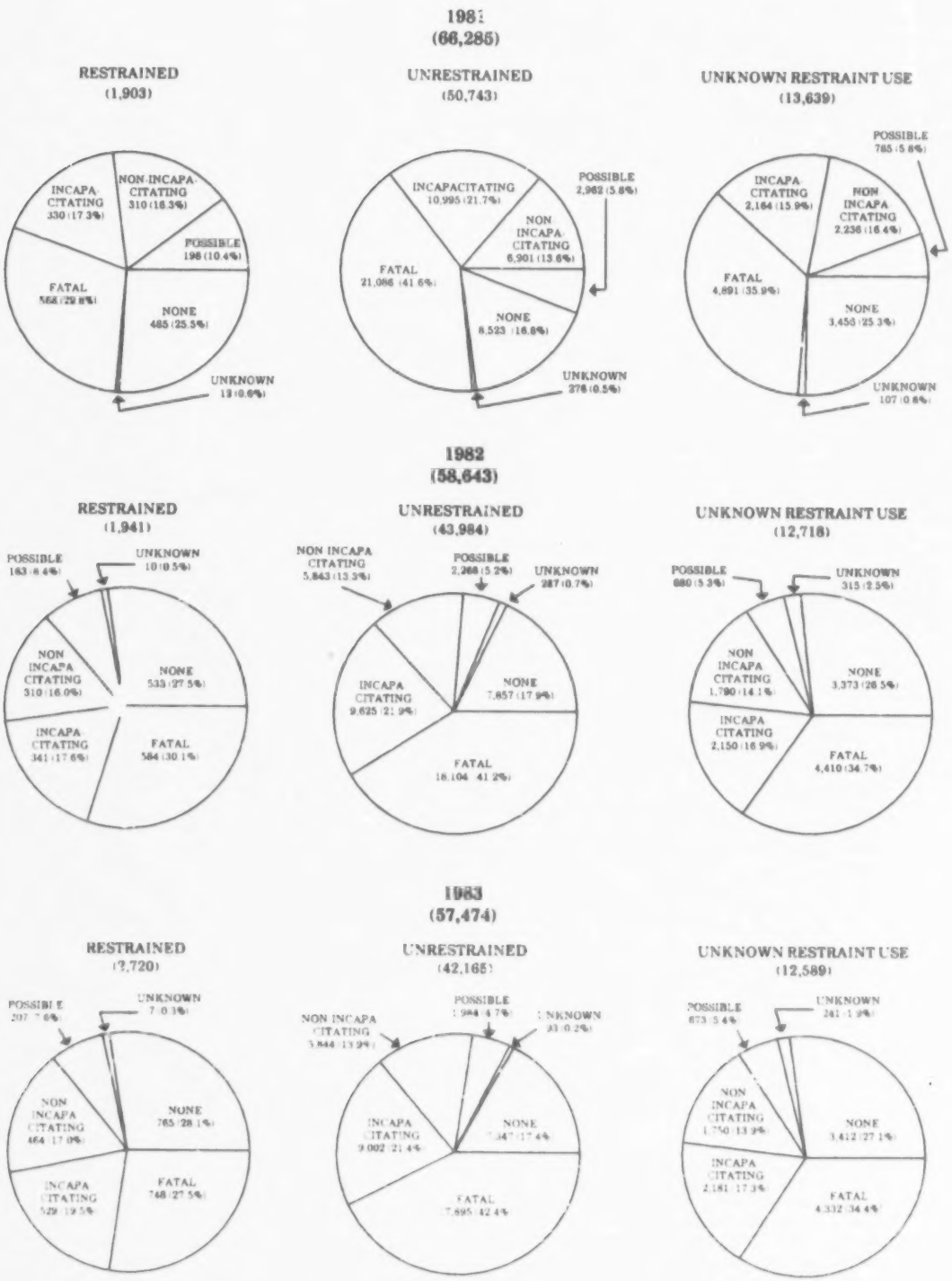
4 Blood Alcohol Content at least 0.01%

5 Blood Alcohol Content at least 0.05%

6 Blood Alcohol Content at least 0.10%

SOURCE: U.S. DOT NHTSA, *Fatal Accident Reporting System*, 1982-1983, pp. 15 and 18.

Figure 17. Injury Severity of Passenger Car Occupants in Fatal Accidents, 1981-1983



SOURCE: U.S. DOT/NHTSA, *Fatal Accident Reporting System*, 1981-1983, pp. 22, 25, 52.

Table 12. Number of Fatalities by Mode 1973-1984

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
HIGHWAY												
Motor Vehicle Traffic	54,052	45,196	44,525	45,523	47,878	50,331	51,093	51,091	49,301	43,945	42,589[r]	43,918[p]
Motor Carriers of Property[1]	3,058	2,429	2,232	2,520	2,983	2,998	3,072	2,528	2,810	2,479	2,528[r]	n/a
Motor Carriers of Passengers[1]	105	77	59	62	87	68	60	74	95	76	67[r]	n/a
RAILROAD												
Rail-Highway Grade Crossing	1,186	1,224	966	1,174	996	1,064	883	833	728	607	575[r]	648[p]
Rail[2]	730	689	575	510	534	582	546	584	556	512	499[r]	598[p]
RAIL RAPID TRANSIT	n/a	n/a	n/a	n/a	70	50	62	83	103	87[r]	50[r]	50[p]
AVIATION												
U.S. Air Carriers[3]	221	460	122	38	78	160	351	0	4	233[r]	15[p]	4[p]
Commuter Air Carriers[4]	n/a	n/a	28	27	32	48	66	37	34	14	11[p]	46[p]
On-Demand Air Taxis[5]	n/a	n/a	69	100	118	155	77	103	94	72[r]	62[r]	51[p]
U.S. General Aviation[6]	1,299	1,327	1,258	1,226	1,280	1,558	1,237	1,252	1,282	1,182[r]	1,046[r]	1,002[p]
MARINE												
Waterborne Transportation	128	218	243	248	157	186	174	206	154	223	289[r]	79[p]
Recreational Boating	1,754	1,446	1,466	1,264	1,312	1,321	1,400	1,360	1,206	1,178	1,241[p]	1,063[p]
MATERIALS TRANSPORT												
Liquid Pipeline	7	10	7	5	3	3	4	3	5	0	6	0
Gas Pipeline	35	24	14	63	36	31[r]	45[r]	11	17	31	12[p]	35[p]
Hazardous Materials	21	30[r]	27	24[r]	26[r]	45[r]	17[r]	19	25[r]	12	8	7

n/a = not available.
r = revised.
p = preliminary.
[a] Includes preliminary notification of Pipeline leaks via telephone reports.
[b] Beginning with 1983 data, Pipeline Incidents are credited to the year in which they occurred, not the year in which the report was received.
[c] Fatalities resulting from train and nontrain accidents. Prior to 1982, fatality data include train accidents, train incidents and nontrain incidents.
[1] Includes only those motor carriers operating in interstate or foreign commerce.
[2] Fatalities resulting from train accidents, train incidents and non-train incidents.
[3] Large carriers operating under 14 CFR 121 only, all scheduled service (airlines).
[4] All scheduled service operating under 14 CFR 135 (commuter air carriers).
[5] Non-scheduled service operating under 14 CFR 135 (on-demand air taxis).
[6] All operations other than those operated under 14 CFR 121 and 14 CFR 135. Includes air carrier fatalities when in collision with General Aviation aircraft.

Source: See Appendix A, pp. A-22, A-23.

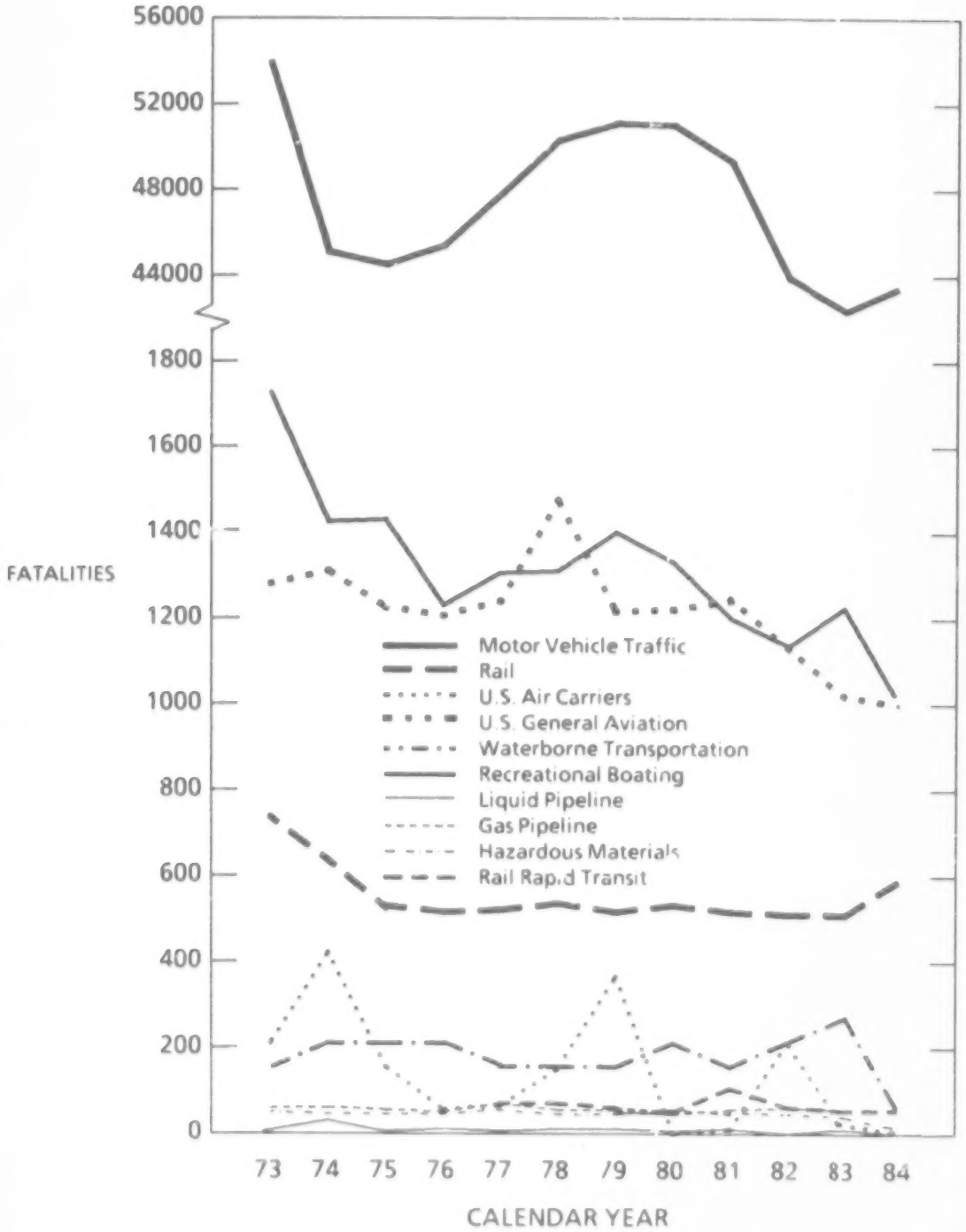


Figure 18. Number of Fatalities by Mode, 1973-1984

Table 13. Air Travel Arrivals Between the United States and Foreign Countries, 1975 to 1984 (thousands)

Arrivals

Flag of Carrier and Country	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Total Passengers	12,646	13,964	14,701	16,955	19,268	20,262	20,881	20,216	20,840	23,212
Flag of Carrier:										
United States	6,502	7,124	7,487	8,551	9,864	10,031	10,265	10,163	10,698	11,623
Foreign	6,144	6,840	7,214	8,404	9,404	10,231	10,615	10,054	10,142	11,588
Country of embarkation[1]										
Australia	106	124	127	147	208	227	229	254	242	277
Bahamas, The	758	790	799	993	1,078	1,123	1,053	1,153	1,344	1,373
Barbados	76	35	104	117	139	135	123	115	167	211
Belgium	144	140	113	113	187	242	249	299	250	242
Bermuda	398	452	441	426	469	497	451	441	439	441
Brazil	212	183	186	219	253	300	311	308	308	321
China/Taiwan	50	57	67	92	96	113	138	148	154	187
Colombia	173	188	212	232	281	315	334	314	309	285
Denmark	222	238	238	248	260	267	251	243	230	239
Dominican Republic	336	367	416	429	465	468	495	501	532	575
France	512	602	611	656	707	689	686	695	705	795
Germany, Fed Rep of	622	815	863	963	1,053	1,175	1,132	1,174	1,223	1,404
Grand Cayman	25	63	68	81	96	121	129	132	144	170
Greece	121	161	198	220	231	208	206	198	234	265
Haiti	91	97	101	120	142	133	148	146	159	175
Hong Kong	98	123	91	112	187	228	230	197	217	295
Ireland	220	239	251	244	263	220	229	250	222	256
Israel	84	109	134	139	190	189	190	189	233	255
Italy	431	447	471	530	572	537	493	529	572	649
Jamaica	457	388	327	427	492	429	479	587	682	712
Japan	1,095	1,180	1,213	1,308	1,579	1,624	1,705	1,813	1,896	2,267
Korea, Rep of	105	119	117	118	169	234	228	245	249	290
Mexico	1,626	1,661	1,647	2,118	2,611	2,886	3,091	2,456	2,691	2,901
Netherlands	312	314	329	371	460	427	450	482	467	558
Netherlands Antilles	213	272	269	307	353	327	359	332	370	426
Panama Republic	97	119	122	127	154	150	151	146	146	169
Philippines	108	148	136	175	163	194	244	212	158	165
Spain	306	279	299	335	333	312	310	337	376	418
Switzerland	236	308	345	339	321	312	321	332	314	427
United Kingdom	1,549	1,869	2,102	2,596	2,689	2,973	3,092	2,694	2,812	3,222
Venezuela	205	225	282	355	431	533	577	581	312	255
Other	1,658	1,802	2,029	2,298	2,636	2,674	2,747	2,707	2,683	2,987

Covers passengers on international commercial flights arriving at U.S. airports. Excludes traffic between U.S. and Canada border crossers, crewmen, and military personnel. Travelers between U.S. ports in the 50 States, Puerto Rico, Guam, or the Virgin Islands, and any other outlying area are included. Data compiled from flight reports of U.S. Immigration and Naturalization Service. Selection of countries based on minimum of 150,000 arrivals in 1984.

[1] Country where passenger boarded/deboarded a direct flight to/from the U.S.

Note: Sum of components may not equal total due to independent rounding.

Source: U.S. DOT, Transportation Systems Center, Center for Transportation Information, Cambridge, Mass., *U.S. International Air Travel Statistics*, annual, beginning with 1975.

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Table 14. Air Travel Departures Between the United States and Foreign Countries, 1975 to 1984 (thousands)

Departures

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
Flag of Carrier and Country										
Total Passengers	12,053	13,136	13,804	15,796	18,082	19,256	19,911	19,322	19,724	21,608
Flag of Carrier										
United States	5,912	6,519	6,889	7,830	9,124	9,369	9,581	9,485	9,888	10,531
Foreign	6,141	6,617	6,915	7,965	8,958	9,886	10,330	9,837	9,837	11,076
Country of debarkation[1]										
Australia	103	122	134	159	222	245	258	252	201	223
Bahamas, The	704	719	719	865	924	1,006	927	1,009	1,075	1,063
Barbados	74	76	97	105	124	126	116	113	168	212
Belgium	134	128	105	100	173	231	238	283	226	216
Bermuda	372	411	414	401	443	467	417	413	394	395
Brazil	206	192	181	217	252	291	301	303	303	304
China/Taiwan	41	53	61	77	85	90	105	123	128	167
Colombia	171	184	204	230	272	299	315	300	302	290
Denmark	188	202	210	214	238	254	243	235	219	235
Dominican Republic	322	352	390	402	417	443	466	464	490	479
France	470	508	539	569	646	635	646	647	656	748
Germany, Fed Rep of	649	756	824	897	1,003	1,178	1,149	1,164	1,220	1,419
Grand Cayman	26	58	64	73	91	112	117	116	135	160
Greece	123	167	185	198	220	190	190	197	222	234
Haiti	81	91	94	114	130	124	126	131	144	156
Hong Kong	59	67	51	76	127	152	166	144	184	263
Ireland	163	175	195	200	236	212	219	234	196	212
Israel	105	149	156	161	195	186	194	211	228	278
Italy	409	412	448	486	517	495	460	500	561	647
Jamaica	416	346	297	370	432	382	435	526	601	616
Japan	1,183	1,192	1,204	1,272	1,514	1,602	1,697	1,779	1,854	2,127
Korea, Rep of	60	57	66	80	134	186	188	212	212	244
Mexico	1,525	1,654	1,570	2,062	2,536	2,886	3,157	2,516	2,670	2,808
Netherlands	304	289	314	338	422	409	443	477	458	513
Netherlands Antilles	184	237	230	256	302	282	322	297	321	346
Panama Republic	100	115	119	128	148	142	141	136	164	194
Philippines	81	105	111	138	132	160	178	175	133	166
Spain	260	253	259	295	292	273	288	321	350	378
Switzerland	224	289	323	311	305	306	315	330	327	409
United Kingdom	1,446	1,730	1,984	2,477	2,608	2,840	2,989	2,607	2,687	3,103
Venezuela	198	233	281	356	424	518	571	571	321	257
Other	1,672	1,821	1,975	2,169	2,518	2,534	2,534	2,536	2,564	2,746

Covers passengers on international commercial flights departing from U.S. airports. Excludes traffic between U.S. and Canada, border crossers, crewmen, and military personnel. Travelers between U.S. ports in the 50 States, Puerto Rico, Guam, or the Virgin Islands, and on any other outlying area are included. Data compiled from flight reports of U.S. Immigration and Naturalization Service. Selection of countries based on minimum of 150,000 arrivals in 1984.

[1] Country where passenger boarded/deboarded a direct flight to/from the U.S.

Note: Sum of components may not equal total due to independent rounding.

Source: U.S. DOT, Transportation Systems Center, Center for Transportation Information, Cambridge, Mass., *U.S. International Air Travel Statistics*, annual, beginning with 1975.

Table 15. U.S. Retail Passenger Car Sales, 1973-1983 (thousands)

DOMESTIC		IMPORTS				Total Passenger Car Sales
Year	U.S.	Japan	Germany	Other	Total	
1973	9,676	743	788	218	1,748	11,424
1974	7,454	592	595	212	1,399	8,853
1975	7,053	808	493	271	1,571	8,624
1976	8,611	942	371	186	1,499	10,110
1977	9,109	1,388	460	227	2,074	11,183
1978	9,312	1,357	436	209	2,002	11,314
1979	8,341	1,770	352	210	2,332	10,673
1980	6,581	1,906	305	187	2,398	8,979
1981	6,209	1,859	284	186	2,323	8,537
1982	5,759	1,802	247	174	2,223	7,982
1983	6,795	1,916	279	191	2,386	9,181

Note: Sum of components may not equal total due to independent rounding
Source: Motor Vehicle Manufacturers Association of the U.S., Inc., *Facts & Figures*, 1984, p. 16

Table 16. Annual U.S. Motor Vehicles Production and Factory Sales, 1973-1983 (thousands)

PRODUCTION				FACTORY SALES		
Year	Passenger Cars	Motor Trucks and Buses	Total Vehicles	Passenger Cars	Motor Trucks and Buses	Total Vehicles
1973	9,667	3,014	12,682	9,658	2,980	12,637
1974	7,325	2,747	10,071	7,331	2,727	10,059
1975	6,717	2,270	8,987	6,713	2,272	8,895
1976	8,498	2,300	11,498	8,500	2,979	11,480
1977	9,214	3,489	12,703	9,201	3,442	12,642
1978	9,177	3,723	12,899	9,165	3,706	12,871
1979	8,434	3,046	11,480	8,419	3,037	11,456
1980	6,376	1,634	8,010	6,400	1,667	8,067
1981	6,253	1,690	7,943	6,255	1,701	7,956
1982	5,073	1,912	6,986	5,049	1,906	6,956
1983	6,781	2,424	9,205	6,739	2,414	9,153

Note: Sum of components may not equal total due to independent rounding. Factory sales in 1980 and 1981 were greater than production total because of sales from previous year's inventory.
Source: Motor Vehicle Manufacturers Association of the U.S., Inc., *Facts & Figures*, 1984, p. 6

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Table 17. World Motor Vehicle Production, 1983 (thousands)

Country	Passenger Cars	Trucks and Buses	Total
Argentina	128	31	159
Australia	311	27	337
Austria	6	6	12
Belgium	261	25	285
Brazil	576	320	896
Canada	969	556	1,524
Czechoslovakia	172	58	230
France	2,961	375	3,336
Germany, East	183	41	224
Germany, West	3,878	293	4,171
Hungary	n/a	13	13
India	45	109	154
Italy	1,396	180	1,575
Japan	7,152	3,960	11,112
Korea	122	99	221
Mexico	207	78	285
Netherlands, The	106	12	118
Poland	260	54	314
Romania	99	55	154
Spain	1,142	147	1,289
Sweden	345	52	397
United Kingdom	1,045	245	1,289
United States	6,781	2,424	9,205
U.S.S.R.	1,318	861	2,178
Yugoslavia	210	38	248
Total	29,670	10,057	39,727

n/a = not available.

Source: Motor Vehicle Manufacturers Association of the U.S., Inc., *Facts & Figures*, 1984, p. 29

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Table 18. U.S. Cars in Fleets by Type of Use, 1973-1983

Cars in fleets of 10 or more
(thousands)

Use	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Business Fleets	2,863	2,902	2,909	3,040	3,067	3,124	3,174	3,259	3,287	3,286	3,307
Owned	1,119	1,088	1,069	1,051	1,036	1,033	1,033	1,025	1,019	1,018	1,012
Leased	1,744	1,814	1,840	1,989	2,031	2,091	2,141	2,234	2,268	2,268	2,295
10-24 cars	674	674	675	707	716	716	726	724	734	738	741
25 or more cars	2,189	2,228	2,234	2,333	2,351	2,408	2,448	2,535	2,553	2,548	2,566
Individually leased	994	1,008	1,072	1,217	1,385	1,610	1,690	1,708	1,713	1,645	1,653
Government [a]	686	701	715	735	743	747	732	731	757	603	605[b]
Utilities	467	482	497	508	518	523	529	532	537	530	533
Police	249	261	278	286	292	294	291	288	284	223	221
Taxi	182	185	193	202	202	205	207	205	198	141	139
Daily rental	364	361	354	373	385	448	462	500	462	457	466
Driver school	27	26	25	26	26	24	21	20	19	18	18
Total (Cars in fleets of 10 or more)	**5,832**	**5,926**	**6,043**	**6,387**	**6,618**	**6,975**	**7,106**	**7,243**	**7,234**	**6,903**	**6,942**
Cars in fleets of 4 or more	10,214	10,324	10,398	10,403	10,414	10,423	10,428	10,433	10,436	10,076	10,400

[a] Data from *Automotive Fleet* do not include federal government vehicles. Federal fleet data are taken from *Federal Motor Vehicle Fleet Report*, General Services Administration, Table 1 (all agencies -- domestic -- sedans and station wagons), and added to *Automotive Fleet* local government fleet figures.

[b] Based on estimate of 105,837 cars in federal government fleets in 1983.

Source: 1973-1982: Oak Ridge National Laboratory, *Transportation Energy Data Book*, 1983, Table 2.20 and similar table in earlier editions.
1983: *Ibid.*, personal communication.

SUPPLEMENTARY DATA
Section I: Transportation and the Economy
1973 - 1983

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Table 19. Personal Consumption Expenditures by Transportation Sector, 1973-1983 (millions of dollars)

Item	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982[r]	1983
Transportation total	114,576	117,924	129,367	155,189	179,328	198,108	219,446	236,590	261,541[r]	267,296	291,857
User-operated transportation											
Total	106,443	108,762	119,663	114,103	153,112	166,690	189,107	218,504[r]	241,684[r]	246,675	269,948
New cars and net purchases of used cars	41,243	34,763	38,224	49,974	57,460	63,115	64,809	61,766	69,572[r]	73,568	88,275
Tires, tubes, accessories and parts	8,939	9,639	10,528	11,745	13,451	14,699	16,866	18,899	20,916	21,166	22,836
Repair and rental	14,657	15,885	16,781	21,266	25,054	28,057	31,194	32,299	34,900[r]	36,988	38,848
Gasoline & oil	28,635	36,608	40,390	43,973	48,126	51,242	66,596	84,765	94,642	90,386	90,003
Tolls	803	782	817	861	901	917	891	970	1,041	1,100	1,136
Insurance premiums less claims paid	5,240	5,059	3,862	5,431	8,120	8,660	8,771	9,745	9,203[r]	9,506	10,626
Purchased local transportation											
Total	3,460	3,683	3,990	4,375	4,660	4,991	5,429	5,783	6,188[r]	6,781	6,773
Street, electric, railway and local bus	1,724	1,848	1,905	2,074	2,208	2,325	2,494	2,629	2,884[r]	3,286	3,468
Taxicab	1,556	1,635	1,879	2,077	2,222	2,426	2,670	2,857	2,936	3,103	2,905
Railway (commutation)	180	200	206	224	230	240	265	297	368	392	400
Purchased intercity transportation											
Total	4,673	5,479	5,714	6,711	7,655	8,531	10,033	12,303	13,669[r]	13,840	15,136
Railway (non-commutation)	241	316	308	342	350	337	407	465	553	571	616
Intercity Bus	610	691	677	681	716	739	875	1,021	1,107	1,092	1,094
Airline	3,533	4,137	4,375	5,271	6,101	6,901	8,067	10,003	11,088[r]	11,134	12,277
Other	289	335	354	417	488	554	684	814	921[r]	1,043	1,149

r = revised.

Source: See Appendix A, p. A-23.

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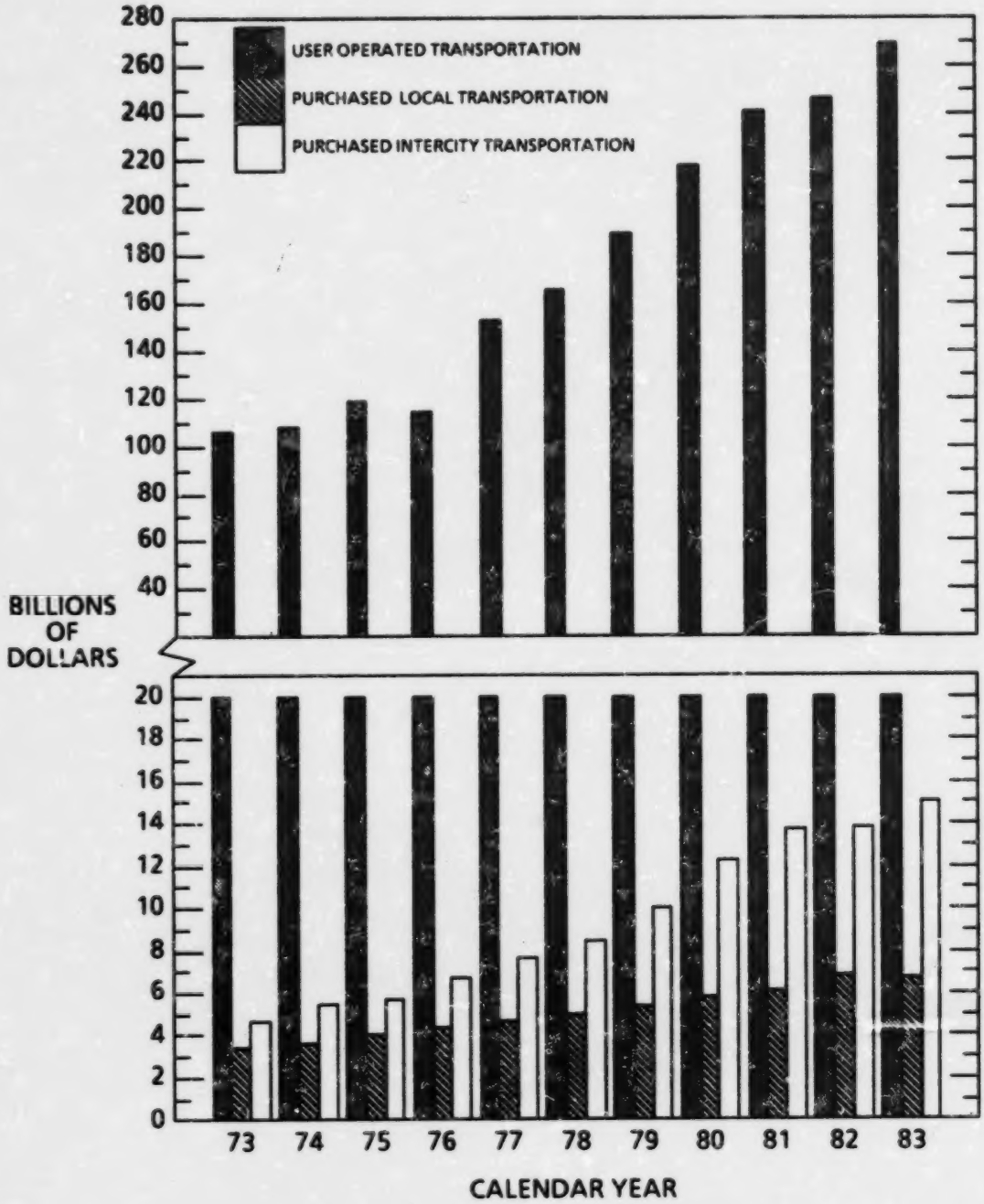

Figure 19. Personal Consumption Expenditures by Transportation Sector, 1973-1983

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Table 20. Personal Consumption Expenditures by Type of Product, 1973-1983 (millions of dollars)

	1973	1974	1975	1976	1977	1978	1979	1980	1981[r]	1982[r]	1983
Food and tobacco	185,283	207,679	228,450	247,047	266,401	293,854	330,830	365,773	396,917	417,780	444,817
Clothing accessories and jewelry	72,019	76,024	81,579	88,566	96,765	108,193	116,341	124,157	135,481	140,268	149,992
Personal care	12,929	13,824	14,672	15,618	17,371	19,287	21,141	22,854	24,689	25,987	27,774
Housing	123,786	137,354	149,776	166,466	185,871	209,644	236,050	266,183	301,951	333,809	363,318
Household operation	109,919	121,345	132,870	148,312	166,173	184,649	207,914	230,308	254,046	273,499	294,858
Medical care	69,148	77,266	87,632	98,418	112,868	126,412	144,193	166,787	194,414	218,590	237,888
Personal business	40,446	45,426	52,211	55,560	60,740	72,602	83,720	93,826	99,548	113,711	130,053
Transportation	114,576	117,924	129,367	155,189	179,328	198,108	219,446	236,590	261,541	267,296	291,857
Recreation	54,796	59,633	65,554	72,499	79,370	89,498	98,850	107,119	120,641	127,829	141,275
Private education and research	12,748	14,110	15,816	17,162	18,208	20,460	23,315	26,413	29,821	31,602	33,313
Religious and welfare activities	11,526	12,688	13,892	15,414	16,712	19,092	20,783	23,346	26,794	29,471	32,166
Foreign travel by U.S. residents	7,328	8,136	8,774	9,401	10,314	11,379	12,607	14,274	15,376	16,201	18,767
Total	811,964	888,111	976,449	1,084,271	1,204,440	1,346,474	1,507,165	1,668,059	1,849,080	1,984,894	2,155,920

r = revised.

Source See Appendix A, p. A 23.

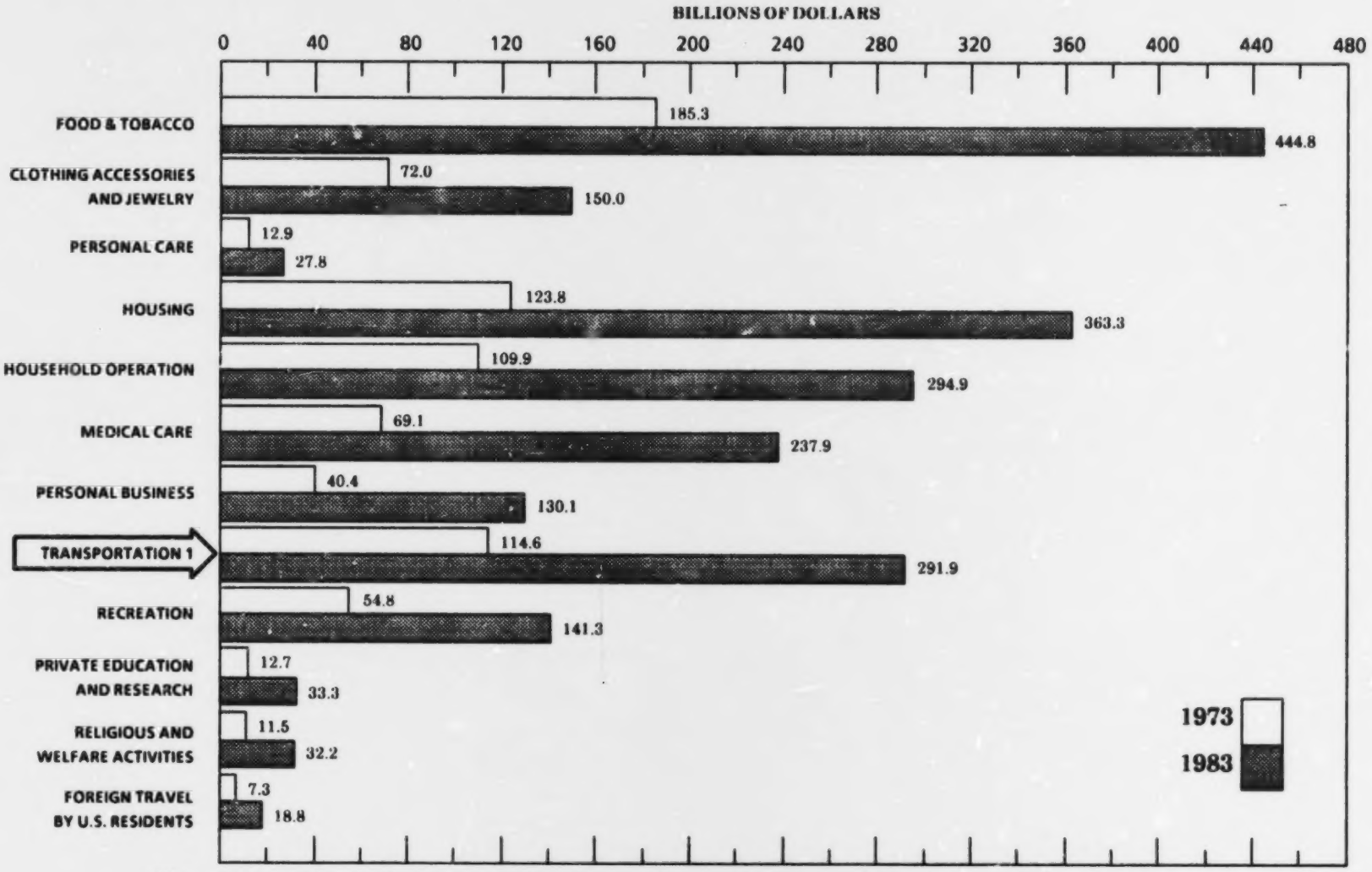

Figure 20. Personal Consumption Expenditures by Type of Product, 1973 and 1983

[1] Excluding Foreign Travel

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Table 21. National Income by Transportation Sector, 1973 - 1983
(millions of dollars)

	1973	1974	1975	1976	1977	1978	1979	1980	1981r	1982r	1983
Total	41,189	45,190	45,690	52,863	60,334	68,529	75,739	80,425	84,265	83,326	87,679
Railway	9,552	10,297	10,202	11,313	13,126	14,253	15,937	17,382	16,441	15,871	15,873
Local and interurban transit passenger	2,432	2,672	2,886	3,129	3,396	3,536	3,841	4,328	4,420	4,555	4,641
Trucking and warehousing	17,815	19,267	19,062	21,728	25,238	29,203	32,046	33,044	35,423	34,929	36,714
Water	2,848	3,414	3,439	3,821	4,160	4,652	5,384	5,877	6,281	6,057	5,818
Air	6,434	7,006	7,194	8,804	10,338	11,941	12,518	13,290	14,287	14,317	16,395
Pipeline, except natural gas	593	646	824	996	992	1,291	1,745	1,765	1,949	1,556	1,772
Transportation services	1,515	1,888	2,083	2,472	3,084	3,653	4,268	4,739	5,464	6,041	6,466

r = revised.
Source: Appendix A, p. A-23.

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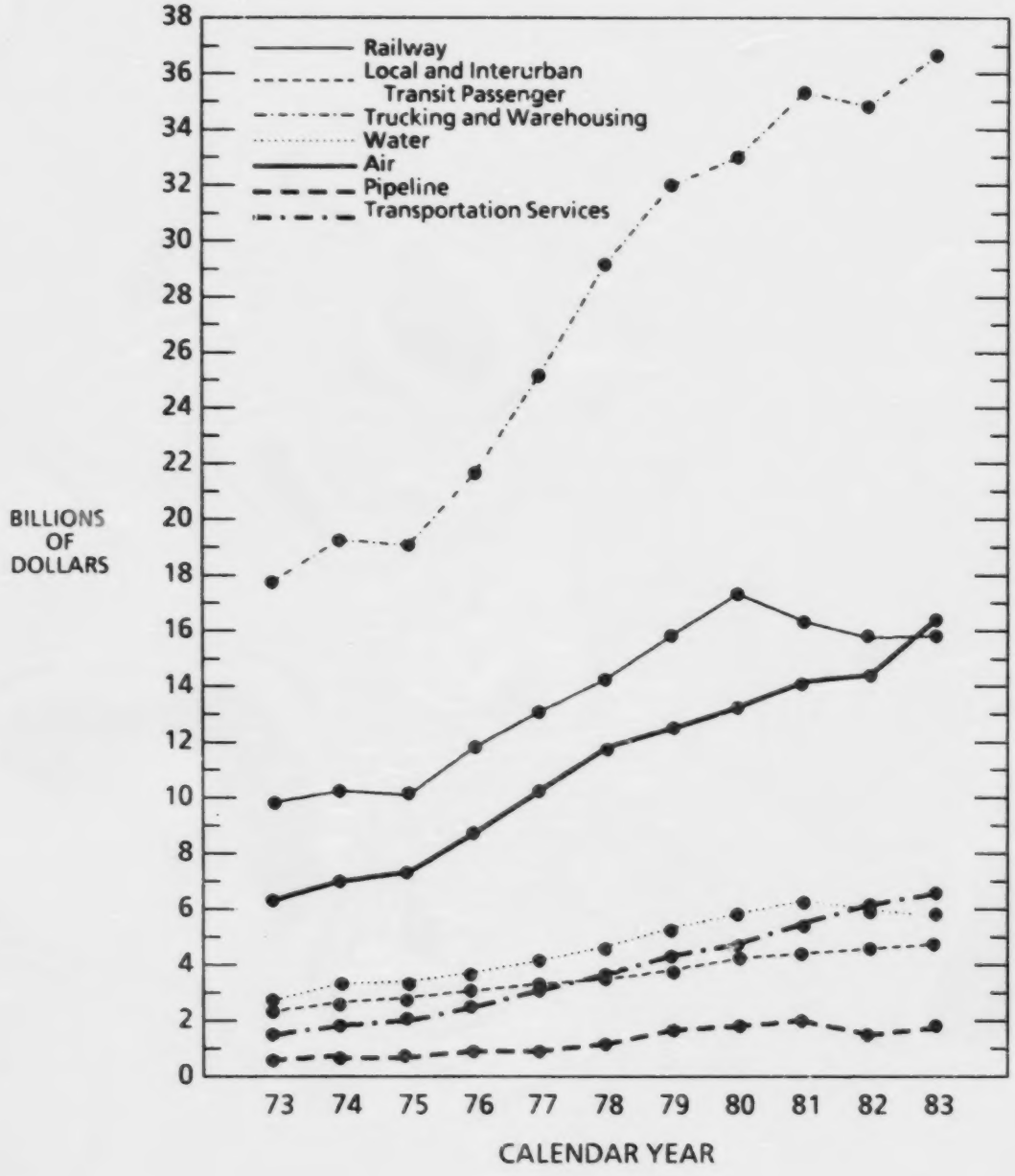

Figure 21. National Income by Transportation Sector, 1973 - 1983

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Table 22. Average Annual Earnings per Full-Time Employee by Transportation Sector, 1973-1983 (millions of dollars)

	1973	1974	1975	1976	1977	1978	1979	1980	1981r	1982r	1983
Total	11,972	12,629	13,534	14,833	16,071	17,431	18,878	20,677	22,366	23,516	24,292
Railway	13,773	14,237	14,982	17,164	18,774	20,597	23,009	25,358	27,437	30,085	33,250
Local and interurban passenger transit	7,936	8,572	9,373	9,983	10,588	11,359	12,057	13,224	14,079	14,699	15,054
Trucking and warehousing	11,342	11,964	12,709	13,826	14,939	16,240	17,367	18,864	20,414	21,083	21,374
Water	12,005	12,880	14,247	15,549	17,192	18,635	20,477	22,990	24,780	26,658	27,305
Air	14,738	15,657	17,084	18,449	20,123	21,810	23,245	25,498	27,991	29,657	31,075
Pipeline, except natural gas	13,125	14,562	16,765	17,833	19,444	19,750	24,450	26,182	28,091	31,409	34,048
Transportation services	9,730	10,488	11,233	11,935	12,560	13,293	14,291	15,604	16,970	18,155	18,498

r = revised.
Source: See Appendix A, p. A-23.

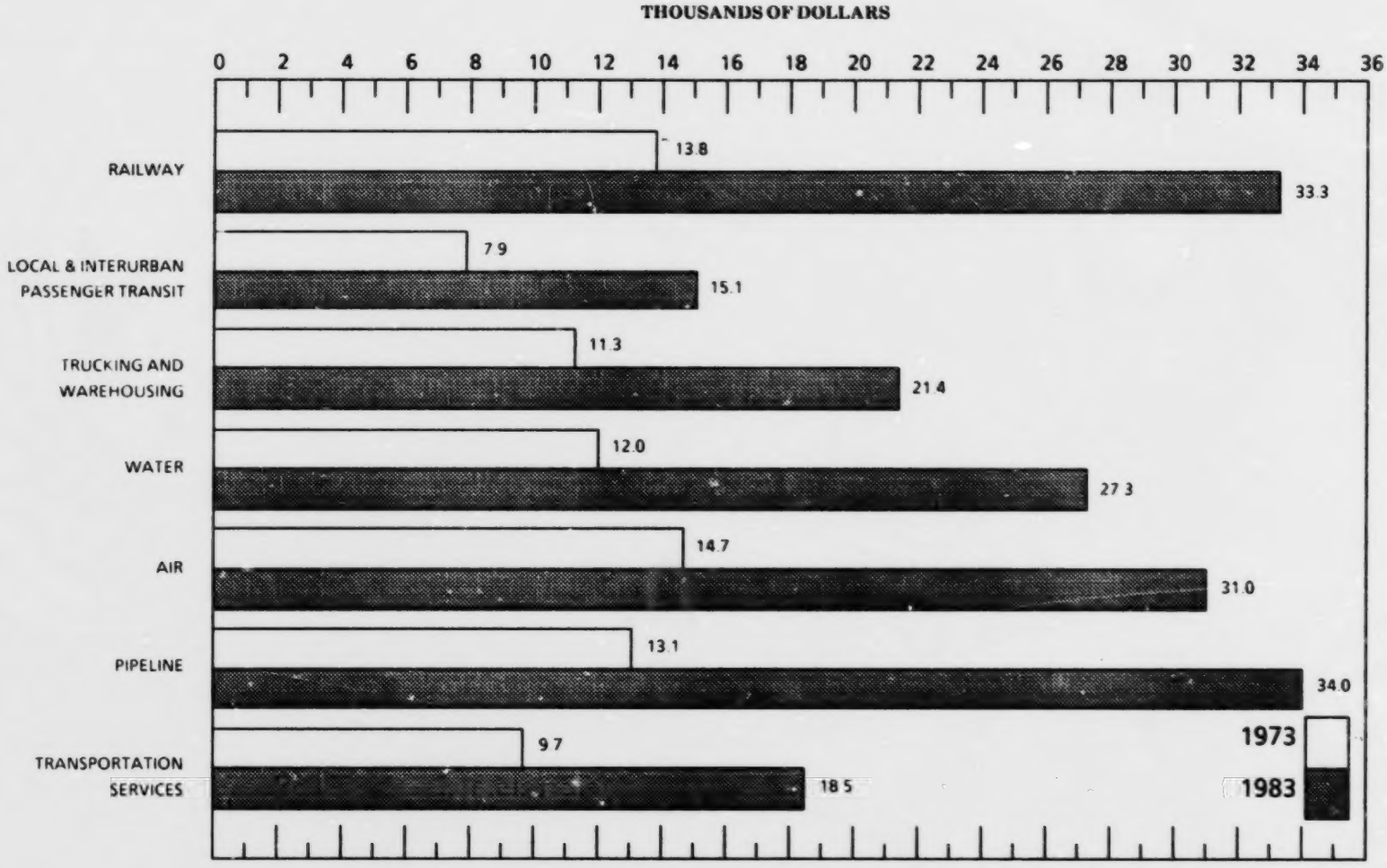

Figure 22. Average Annual Earnings per Full-Time Employee by Transportation Sector, 1973 and 1983

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Table 23. Wages and Salaries by Transportation Sector, 1973-1983
(millions of dollars)

	1973	1974	1975	1976	1977	1978	1979	1980	1981r	1982r	1983
Total	31,582	33,720	34,173	37,987	42,540	48,300	54,462	58,432	62,447	61,988	63,427
Railway	7,782	8,172	8,105	8,994	9,819	10,690	12,195	12,831	13,060	12,365	12,103
Local and interurban passenger transit	1,976	2,143	2,287	2,396	2,520	2,692	2,942	3,240	3,407	3,513	3,643
Trucking and warehousing	13,032	13,866	13,560	15,305	17,493	20,235	22,438	23,222	24,824	24,309	24,901
Water	2,281	2,473	2,593	2,830	3,129	3,671	4,034	4,552	5,080	4,985	4,751
Air	5,114	5,480	5,894	6,494	7,345	8,397	9,763	11,015	12,064	12,367	13,300
Pipeline, except natural gas	210	233	285	321	350	395	489	576	618	691	715
Transportation services	1,187	1,353	1,449	1,647	1,884	2,220	2,601	2,996	3,394	3,758	4,014

r = revised.
Source: See Appendix A, p. A-24.

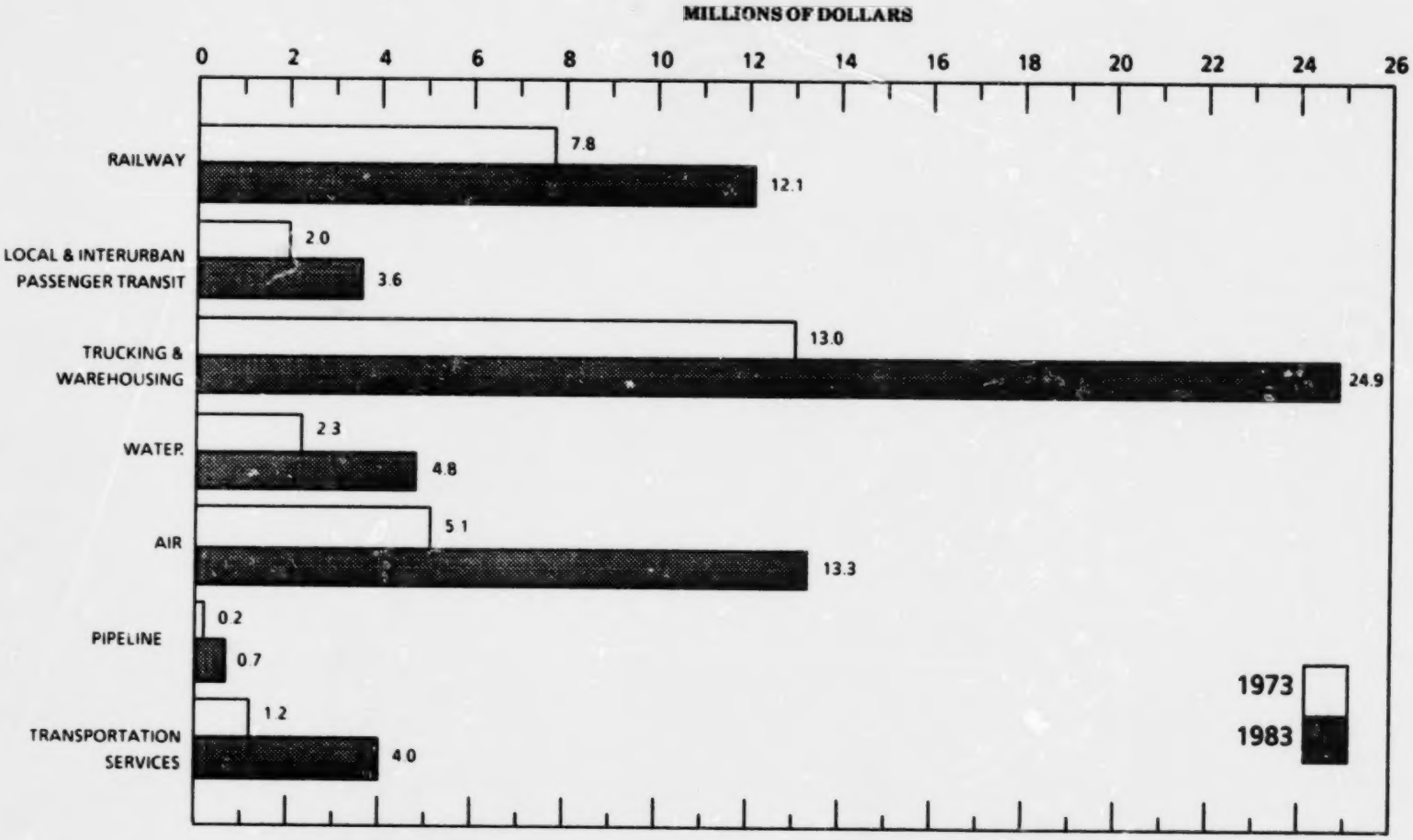

Figure 23. Wages and Salaries by Transportation Sector, 1973 and 1983

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Table 24. Employment in Transportation and Related Industries, 1973-1983 (thousands)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
TRANSPORT SECTOR											
Air	366	368	363	374	386	408	438	453	455r	444r	452
Bus - intercity highway	41	42	40	40	37	36	37	38	38	39r	36
Local transport	72	71	69	68	71	72	76	79	82	82r	78
Railroad	579	590	548	538	545	539	556	532	496	430	377
Oil pipeline	17	17	18	18	19	20	20	21	22	21r	21
Gas pipeline*	36	36	37	38	40	42	42	45	47	48	47
Taxi	94	94	85	77	70	64	60	53	46	42	39
Trucking and warehousing:											
Trucking and terminals	1,096	1,102	1,024	1,068	1,132	1,212	1,249	1,189	1,168	1,125r	1,130
Public warehousing	89	89	84	81	88	91	91	91	88	84	85
Water	201	204	195	195	196	209	216	213	219	202r	194
Transportation services	123	131	134	142	156	170	189	198	211r	220r	227
Total	2,714	2,744	2,597	2,639	2,740	2,863	2,974	2,912	2,872	2,737r	2,686
EQUIPMENT MFG.											
Aircraft and parts	525	539	514	487	482	527	611	652	646	601	579
Motor vehicles and equip.	1,108	1,045	916	985	947r	1,005r	990r	789r	789r	699r	854
Railroad equipment	52	58	57	50	56	64	74	71	54r	37	30
Ship & boat building and repairs	199	205	194	215	224	226	226	221	231	210r	189
Other	157	141	144	149	145	162	156	149	160	175	186
Total	2,041	1,988	1,825	1,886	1,854r	1,984r	2,057r	1,882r	1,880r	1,722r	1,742
RELATED INDUSTRIES											
Automotive and accessories retailers	1,052	1,003	985	1,043	1,093	1,148	1,150	1,048	1,011r	999r	1,035
Automotive wholesalers	371	380	370	385	399	421	439	418	410	404	400
Automotive services and garages	422	430	439	466	498	549	575	571	574	589r	616
Gasoline service stations	651	590	622	626	629	628	577	561	562	559r	557
Highway and street construction	298	293	262	245	246	263	278	268	245r	218r	232
Petroleum	345	366	376	396	422	456	489	533	617	571	579
Other industries:											
Truck drivers and deliverymen	1,337	1,331	1,325	1,319	1,313	1,307	1,300	1,327r	1,308r	1,294	1,281
Shipping and receiving clerks	395	407	419	431	443	455	466	498r	507r	482r	434
Total	4,871	4,800	4,798	4,911	5,043	5,227	5,274	5,224r	5,234r	5,116r	5,134
GOVERNMENT EMPLOY.											
U.S. DOT	70	74	75	74	75	75	74	72	59	62	63
State and local highway	599	596	604	582	587	583	566	559	530	527	527
Post office	97	99	98	94	91	92	93	92	93	93	94
Other	12	12	13	13	13	13	13	13	13	10	10
Total	778	781	790	763	766	763	746	736	695	692	694
Total transportation	10,404	10,313	10,010	10,199	10,534	10,964	11,179	10,816	10,681r	10,268r	10,158
Total civilian labor force	84,409	85,936	84,783	87,485	90,526	94,373	96,945	97,300	108,670	110,204	111,550
Percent transportation	12.3%	12.0%	11.8%	11.7%	11.6%	11.6%	11.5%	11.1%	9.8%	9.3%	9.1%

r = revised.
* Transmission companies only.
Source: See Appendix A, pp. A-24, A-25, A-26.

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Table 25. National Transportation and Economic Trends, 1973-1983 (billions)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Total passenger-miles	2,420	2,368	2,449	2,570	2,674	2,815	2,777	2,704	2,807	2,977r	3,092
Index *	133	130	135	141	147	155	153	149	155	158	170
Total cargo ton-miles	2,810r	2,797r	2,627r	2,787r	2,899r	3,284r	3,387r	3,395r	3,345r	3,126r	3,216
Index *	124r	123	116r	123r	128r	145	149	150	147r	138r	142
Population (millions)	211	213	215	218	220	222	225	227	230r	232	234
Index *	106r	107r	108r	110	111	112	113r	114r	116	117	118
Industrial production											
Index *	130	129	118	131	138	146	153	147	151	139	148
Gross national product (current dollars)	1,307	1,413	1,529	1,700	1,887	2,128	2,418	2,632	2,958r	3,069r	3,305
Index *	165	178	193	214	238	268	305	331	372	387	416

r = revised.
* Index = 100 in 1967.
Source: See Appendix A, p. A-26.

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Table 26. U.S. Government Transportation Research, Planning and R&D Outlays (at 5-Year Intervals 1960-1980 and Annually 1981-1983) (millions of dollars)

	1960	1965	1970	1975	1980	1981	1982	1983
General								
Dept. of Transportation	n/a	2.0	8.1	33.3	22.1	21.7	7.0	11.1
Dept. of Agriculture	n/a	5.9	9.0	11.6	12.5	13.4	14.1	14.4
Total	n/a	7.9	17.1	44.9	34.6	35.1	21.1	25.5
Air								
FAA - Aviation	52.8	96.8#	214.4#	104.9	122.6	120.3	99.3	94.1
NASA - Aircraft Technical	39.0	65.6	187.3	305.8	510.7	465.0	516.3	544.0
Total	91.8†	162.4	401.7	410.7	633.3	585.3	615.6	638.1
Highway								
FHWA - Highways*	29.5	68.1	94.2**	20.1	42.2	31.2	32.1	47.5
NHTSA/FHWA - Safety	n/a	n/a	14.0	21.8	50.1	49.0	42.3	35.7
Total	29.5	68.1	108.2	42.9	92.3	80.2	74.4	83.3
Rail - FRA	n/a	n/a	16.4	43.0	47.8	41.5	37.8	18.5
Urban Mass Transport - UMTA	n/a	1.0	7.6	88.6	75.7	92.3	63.5	59.0
Water								
Maritime Administration	11.2	9.3	12.7	26.5	31.2	25.1	18.4r	23.7
Coast Guard	n/a	n/a	10.1	16.6	21.9	26.7	21.2	23.1
Total	11.2	9.3	22.8	43.1	53.1	51.8	49.6	46.8
TOTAL TRANSPORTATION R&D	132.5	248.7	573.8	673.2	936.8	886.2	862.0	871.2
TOTAL U.S. GOVERNMENT R&D	7,774	14,885	15,632	19,525	30,389	34,252	34,509	36,560
% TRANS. R&D OF TOTAL U.S.	1.7%	1.7%	3.7%	3.4%	3.1%	2.6%	2.5%	2.4%

n/a = not available.
r = revised.
* Figures for 1960 and 1965 include both highway and highway safety research programs.
** 1970 figure includes research grants to states not shown earlier.
\# Includes supersonic transport R&D.
† Atomic Energy Commission also spent $62.8 million in 1960 for nuclear aircraft propulsion R&D.

Source: Transportation Policy Associates, *Transportation in America*, 1985, p. 25.

Table 27. Expenditures and Overseas Travel by U.S. Residents and Foreign Visitors, 1973-1983

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
U.S. residents- Overseas travelers (thousands)	6,933	6,467	6,354	6,897	7,390	7,790	7,835	8,163	8,040	8,510	10,154
Average expenditures Overseas (dollars)	439	478	533	533	543	624	672	726	802	827	802
Total travel and passenger fare transactions (millions of dollars)	7,316	8,075	8,680	9,424	10,199	11,371	12,597	14,004	15,966	17,166	19,509
Travel payments in foreign countries (millions of dollars)	5,526	5,980	6,417	6,856	7,451	8,475	9,413	10,397	11,479	12,394	13,977
Passenger fare payments to foreign countries (millions of dollars)	1,790	2,095	2,263	2,568	2,748	2,896	3,184	3,607	4,487	4,772	5,532
Foreign visitors to U.S. (thousands)	3,554	3,700	3,674	4,456	4,509	5,764	7,230	8,200[r]	9,069[r]	8,761[r]	7,873
Average expenditures of visitors (dollars)	425	450	497	537	595	604	605	679[r]	713[r]	761[r]	799
Total travel and passenger fare transactions (millions of dollars)	4,130	4,845	5,464	6,679	7,175	8,421	10,118	10,650[r]	13,488[r]	13,085[r]	13,932
Travel receipts in U.S. (millions of dollars)	3,412	4,032	4,697	5,742	6,150	7,183	8,441	10,588[r]	12,913[r]	12,393[r]	11,408
Passenger fare receipts in U.S. (millions of dollars)	718	813	767	937	1,025	1,238	1,677	2,062[r]	2,575[r]	2,692[r]	2,524

r = revised.

Source: See Appendix A, pp. A-26, A-27.

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SUPPLEMENTARY DATA
Section II: Energy in Transportation

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Energy Equivalents

One million Btu equals approximately:

- 90 pounds of coal production (1984)
- 120 pounds of oven-dried hardwood
- 8 gallons of motor gasoline or enough to move the average passenger car about 134 miles (1983 rate)
- 10 therms of natural gas (dry)
- 11 gallons of propane
- 1.2 days of per capita energy consumption (1984 rate)
- 2 months of dietary intake of a laborer
- 20 cases (240 bottles) of table wine

One million Btu of fossil fuels burned at electric utilities can generate about 100 kilowatthours of electricity, while about 300 kilowatthours of electricity generated at electric utilities can produce about one million Btu of heat.

One quadrillion Btu equals approximately:

- 45 million short tons of coal production
- 60 million short tons of oven-dried hardwood
- 1 trillion cubic feet of natural gas (dry)
- 170 million barrels of crude oil
- 470 thousand barrels per day of crude oil for one year
- 32 days of petroleum imports into the United States (1984 rate)
- 28 days of United States motor gasoline usage (1984 rate)
- 30 hours of world energy consumption (1983 rate)

Source: U.S. DOE/EIA, *Annual Energy Review 1984*, p. 265

One barrel of crude oil equals approximately:

- 15 days of petroleum consumption per person (U.S.)
- 5.6 thousand cubic feet of natural gas (dry)
- 0.26 short tons (or 520 pounds) of coal production
- 1,700 kilowatthours of electricity consumed

One short ton of coal equals approximately:

- 110 days of coal consumption per person (U.S.)
- 3.8 barrels of crude oil
- 21 thousand cubic feet of natural gas (dry)
- 6,500 kilowatthours of electricity consumed

One thousand cubic feet of natural gas equals approximately:

- 5 days of natural gas consumption per person (U.S.)
- 0.18 barrels (or 7.4 gallons) of crude oil
- 0.047 short tons (or 93 pounds) of coal production
- 300 kilowatthours of electricity consumed

One thousand kilowatthours (kWh) of electricity equal approximately:

- 38 days of electricity consumption per person (U.S.)
- 0.59 barrels of crude oil (although it takes about 1.8 barrels of oil to produce 1,000 kWh)
- 0.15 short tons (or 310 pounds) of coal production (although it takes about 0.47 short tons to produce 1,000 kWh)
- 3,300 cubic feet of natural gas - dry (although it takes about 10,000 cubic feet to produce 1,000 kWh)

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Part 1. Energy Consumption

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Table 28. Consumption of Energy by End-Use Sector (at 5-Year Intervals 1955-1965 and Annually 1966-1984) (quadrillion Btu)

Year	Residential and Commercial[1]	% of Total	Industrial[1]	% of Total	Transportation[1]	% of Total	Electric Utilities[1]	% of Total	Total Energy Consumption
1955	7.47	19.1	15.42	39.4	9.47	24.2	6.75	17.2	39.17
1960	8.75	20.0	16.19	37.0	10.56	24.1	8.21	18.8	43.75
1965	10.00	19.0	19.17	36.4	12.39	23.5	11.03	21.0	52.62
1966	10.47	18.8	20.03	36.0	13.05	23.5	12.01	21.6	55.59
1967	11.04	19.2	20.02	34.8	13.70	23.8	12.71	22.1	57.50
1968	11.39	18.7	20.80	34.1	14.81	24.3	13.89	22.8	60.94
1969	11.90	18.5	21.55	33.6	15.45	24.1	15.19	23.7	64.12
1970	12.14	18.3	21.86	32.9	16.04	24.2	16.28	24.5	66.36
1971	12.35	18.2	21.61	31.9	16.67	24.6	17.16	25.3	67.82
1972	12.64	17.8	22.33	31.4	17.67	24.8	18.53	26.0	71.19
1973	12.28	16.5	23.47	31.6	18.57	25.0	19.85	26.7	74.21
1974	11.77	16.2	22.56	31.1	18.08	24.9	20.02	27.6	72.48
1975	11.60	16.5	20.30	28.8	18.20	25.8	20.35	28.9	70.48
1976	12.25	16.5	21.38	28.8	19.06	25.6	21.57	29.0	74.30
1977	11.87	15.6	21.83	28.6	19.77	25.9	22.59	30.6	76.21
1978	11.91	15.3	21.81	27.9	20.56	26.3	23.72	30.4	78.04
1979	11.53	14.6	22.72	28.8	20.43	25.9	24.13	30.6	78.84
1980	10.72	14.1	20.99	27.6	19.66	25.9	24.50	32.3	75.90
1981	10.05	13.6	19.65	26.6	19.46	26.3	24.75	33.5	73.94
1982	10.07	14.2	17.42	24.6	19.03	26.9	24.27	34.3	70.82
1983	9.54[r]	13.5[r]	16.88[r]	23.9[r]	19.11[r]	27.1[r]	24.93[r]	35.4	70.50[r]
1984[p]	9.57	13.0	18.24	24.7	19.83	27.0	26.05	35.3	73.73

r = revised.
p = preliminary.
[1] Includes only those fossil fuels consumed directly in the Sector.
Note: Sum of components may not equal total due to independent rounding.
Source: 1955-1984: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 4.

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Table 29. U.S. Energy Consumption by the Transportation Sector (at 5-Year Intervals 1955-1965 and Annually 1966-1984)

Year	Coal[1]		Petroleum		Natural Gas[2]		Total Fossil Fuels[3]	Sales of Electricity[4]		Total Transportation Consumption		Total Gross Energy Consumption[r]
	Million Short Tons	Trillion[4] Btu	Million Barrels	Trillion[5] Btu	Trillion Cubic Feet	Trillion[5] Btu	Trillion Btu	Million Kilowatt-Hours	Trillion[5] Btu	Trillion[6] Btu	% of Total Gross Energy Consumption	Quadrillion Btu
1955	17.0	439	1,627.9	8,804	0.25	259	9,502	4,563	15.6	9,518	24.3	38.93
1960	3.0	80	1,881.2	10,136	0.35	362	10,578	4,770	16.3	10,594	24.2	43.81
1965	0.7	19	2,201.0	11,859	0.50	516	12,394	4,652	15.9	12,410	23.6	52.69
1966	0.6	16	2,317.8	12,493	0.54	558	13,067	4,514	15.4	13,082	23.5	55.67
1967	0.5	13	2,427.3	13,093	0.58	599	13,705	4,572	16.6	13,722	23.9	57.58
1968	0.4	11	2,620.7	14,147	0.59	608	14,766	4,540	15.5	14,782	24.3	61.01
1969	0.3	8	2,741.2	14,794	0.63	650	15,452	4,531	15.5	15,468	24.1	64.20
1970	0.3	8	2,836.0	15,300	0.72	742	16,050	4,633	15.8	16,066	24.2	66.44
1971	0.2	5	2,949.2	15,902	0.74	763	16,670	4,537	15.5	16,686	24.6	67.90
1972	0.2	5	3,129.3	16,867	0.77	791	17,663	4,440	15.1	17,678	24.8	71.27
1973	0.1	3	3,303.0	17,826	0.73	745	18,574	4,186	14.3	18,588	25.0	74.29
1974	0.1	3	3,226.6	17,404	0.67	686	18,093	4,258	14.5	18,108	25.0	72.55
1975	*	**	3,267.0	17,616	0.58	592	18,208	4,273	14.6	18,223	25.9	70.55
1976	*	**	3,429.4	18,505	0.55	560	19,065	4,338	14.8	19,080	25.7	74.37
1977	*	**	3,558.8	19,225	0.53	540	19,765	4,212	14.4	19,779	26.0	76.29
1978	*	**	3,701.1	20,012	0.53	538	20,550	4,336	14.8	20,565	26.4	78.09
1979	*	**	3,650.0	19,820	0.60	611	20,431	4,256	14.5	20,446	25.9	78.90
1980	*	**	3,495.3	19,014	0.63	645	19,659	4,275	14.6	19,674	25.9	75.96
1981	*	**	3,460.2	18,803	0.64	657	19,460	4,206	14.4	19,474	26.3	73.99
1982	*	**	3,394.5	18,408	0.60	616	19,024	4,288	14.6	19,039	26.9	70.84
1983	*	**	3,434.7[r]	18,602[r]	0.49[r]	505[r]	19,107[r]	4,152	14.2	19,121	27.1	70.50
1984[p]	*	**	3,557.2	19,291	0.51	526	19,817	4,412	15.1	19,832	26.9	73.73

r = revised.
p = preliminary.
* Less than 0.05 million short tons.
** Less than 1 trillion Btu's.

[1] Bituminous Coal and Lignite only. [2] Pipeline fuel. [3] Sum of coal, petroleum and natural gas. [4] Includes only energy used by Railroads and Railways. [5] Btu's derived by multiplying by conversion factors on p. 261 for bituminous coal and lignite consumption by Non-Utility, p. 260 for Natural Gas consumption by Non-Utility, p. 258 for petroleum in Transportation Use, and p. 257 for Electricity consumption, U.S. DOE, *Annual Energy Review 1984*. [6] Sum of total fossil fuels and sales of electricity.

Note: Sum of components may not equal total due to independent rounding.

Source: U.S. DOE, *Annual Energy Review 1984*.
Coal: Table 67; Petroleum: Table 50; Natural Gas: Table 61; Total Gross Energy Consumption: Table 4.
Edison Electric Institute, *Statistical Year Book*, 1978, 1971 and Historical Statistics Through the Year 1970.
Sales of Electricity: 1955-1978: *Ibid.*, Section IV, Table 19s; 1979-1980: *Ibid.*, Source and Disposition of Electricity, 1980.
1981-1982: *Statistical Year Book*, 1982.
1983: *Ibid.*, Quarterly Statistical Report, 1984.
1984: *Ibid.*, personal communication.

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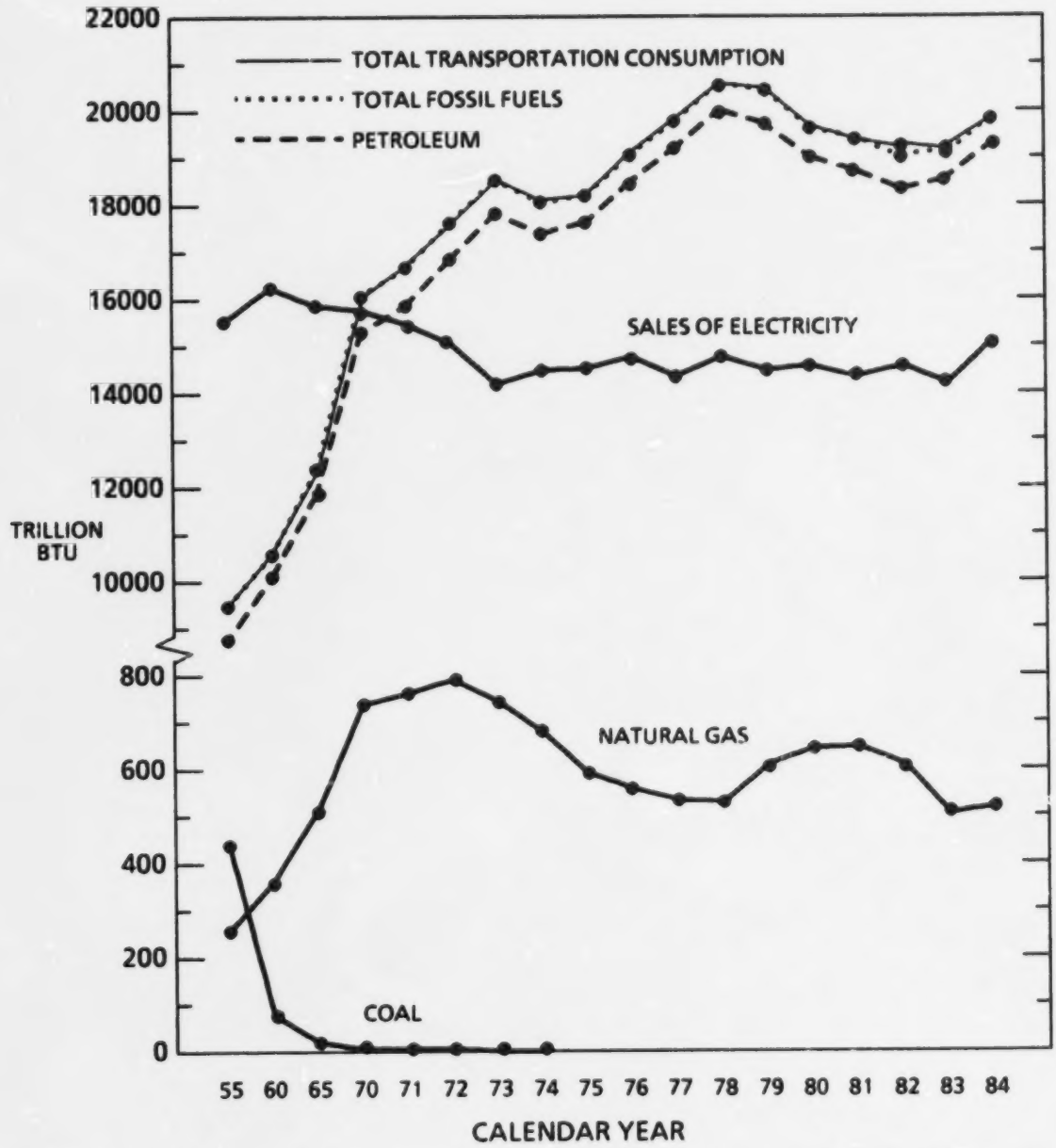

Figure 24. U.S. Energy Consumption by the Transportation Sector, 1955-1984

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Table 30. Fuel Consumption by Mode of Transportation, 1973-1983

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Class I railroads											
Locomotives											
Diesel oil, gals x 10^6	4,145r	4,116r	3,736r	3,896r	3,985r	3,968r	4,072r	3,944r	3,756r	3,179r	3,138
Electricity, kWh x 10^6	346	467	422	353	417	331	309	190	81	34	n/a
Coal, tons	1,202	1,160	1,160	1,421	1,569	1,275	1,421	830r	824r	838r	785
Motor cars											
Diesel oil, gals x 10^6	3	4	4	5	3	2	3	2	1	1	1
Electricity, kWh x 10^6	901	847	857	790	986	991	1,062	968	380	905	52
Air											
Certified carriers											
Jet fuel, gals x 10^6	10,671	9,546	9,507	9,808†	10,268†	10,639†	11,369†	11,311†	10,588†	10,406	10,671
General aviation											
Aviation gasoline, gals x 10^6	411	443	412	432	456	518	570	520	489	448	428
Jet fuel, gals x 10^6	304	357	453	495	536	763	736	766	759	887	613
Highway											
Gasoline, gals x 10^6											
Pass. cars & taxis	77,619	73,770	76,010	78,398	80,225	83,312	79,793	73,375	71,418	72,608r	73,150
Motorcycles	392	447	447	448	451	463	440	360	300	240r	240
Diesel & gasoline, gals x 10^6											
Commercial buses[1]	520	525	553	574	583	615	618	696	711	721	737
School buses	327	333	342	390	401	407	405	380	387	399	402
Single-unit trucks[2]	22,755	21,125	21,868	24,914	26,255	27,780	28,544	29,241	30,903	28,195r	28,853
Combination trucks	8,860	10,101	9,764	10,974	11,709	12,491	12,315	10,909	10,734	11,221r	12,005
Water transport											
Residual fuel oil, gals x 10^6	3,881	3,824	4,060	4,933	5,417	6,615	8,003	8,952	7,922	6,409	5,724
Distillate fuel oil, gals x 10^6	1,125	1,040	1,098	1,190	1,408	1,579	1,631	1,478	1,723	1,423	1,419
Gasoline, gals x 10^6	717	697	730	764	774	812	780	1,052	1,093	1,062	1,069
Transit*											
Electricity, kWh x 10^6											
Rapid transit	n/a	n/a	n/a	n/a	n/a	1,984	2,469	2,611	2,617	n/a	2,711
Streetcar	n/a	n/a	n/a	n/a	n/a	22	124	131	153	n/a	162
Trolley bus	n/a	n/a	n/a	n/a	n/a	11	55	48	45	n/a	59
Other**	n/a	n/a	n/a	n/a	n/a	0	0	3	3	n/a	470
Total	n/a	n/a	n/a	n/a	n/a	2,017	2,643	2,793	2,818	n/a	3,942
Gallons of motor fuel, gals x 10^6											
Gasoline	12	7	5	5	8	8	18	11	9	n/a	9
Diesel oil	283	316	365	389	403	362	376	411	424	n/a	462
Propane	15	3	3	1	1	0	3	3	2	n/a	2
Pipelines											
Natural gas, cu. ft. x 10^6	728,177	668,834	582,963	548,323	532,669	530,451	600,964	634,622	642,325	596,411	490,042
Total[3]											
Non-highway use of gasoline x 10^6	3,896	3,623	3,642	3,778	3,725	3,577	3,645	3,655	3,515	3,260	3,216

n/a = not available.
r = revised.
* Data for the period July 1, 1982 through June 30, 1983 were not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.
** Commuter rail for 1983.
† Includes Aviation Gasoline.
1 Includes intercity and urban buses.
2 Includes non-freight truck movements.
3 Private, commercial, and public non-highway use of gasoline.
Source: See Appendix A, pp. A-27, A-28.

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Table 31. Total Motor Vehicle Fuel Consumption and Travel[1], 1973-1983

Year	Number Registered (thousands)	Total Vehicle Miles Traveled (millions)	Average Miles Traveled per Vehicle	Average Miles Traveled per Gallon	Total Fuel Consumed (millions of gallons)	Average Gallons Consumed per Vehicle
1973	129,778	1,308,562	10,083	11.85	110,473	851
1974	134,900	1,285,647	9,530	12.09	106,301	788
1975	137,917	1,330,074	9,644	12.20	108,984	790
1976	143,427	1,411,990	9,844	12.20	115,700	807
1977	148,785	1,476,567	9,926	12.34	119,625	804
1978	153,920	1,548,213	10,059	12.38	125,067	813
1979	159,621	1,529,133	9,580	12.52	122,115	765
1980	161,614	1,520,857	9,410	13.23	114,960	711
1981	164,117	1,556,471	9,484	13.60	114,453	697
1982	165,203[r]	1,592,481	9,640[r]	14.05	113,384[r]	686
1983	169,446	1,649,106	9,732	14.29	115,388	681

r = revised.

1 For the 50 states and District of Columbia, includes personal passenger vehicles, buses, and motor trucks.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

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Table 32. Fuel Consumption and Travel by Personal Passenger Vehicles[1], 1973-1983

Year	Number Registered (thousands)	Total[2] Vehicle Miles Traveled (millions)	Average Miles Traveled per vehicle			Average Miles Traveled per Gallon			Total Fuel Consumed (millions of gallons)			Average Gallons Consumed per Vehicle		
			Passenger Cars	Motor-cycles	All Personal Passenger Vehicles	Passenger Cars	Motor-cycles	All Personal Passenger Vehicles	Passenger Cars	Motor-cycles	All Personal Passenger Vehicles	Passenger Cars	Motor-cycles	All Personal Passenger Vehicles
1973	106,119	1,036,455	9,992	4,498	9,767	13.10	50	13.29	77,619	392	78,011	763	90	736
1974	109,823	1,013,068	9,448	4,500	9,225	13.43	50	13.65	73,770	447	74,217	704	90	676
1975	111,679	1,050,472	9,634	4,500	9,406	13.53	50	13.74	76,010	447	76,457	712	90	685
1976	115,170	1,098,179	9,763	4,500	9,535	13.72	50	13.93	78,398	448	78,847	711	90	685
1977	118,711	1,141,215	9,839	4,500	9,613	13.94	50	14.15	80,225	451	80,677	706	90	680
1978	132,717	1,194,231	10,046	4,500	9,812	14.06	50	14.26	83,312	463	83,775	715	90	688
1979	125,750	1,162,528	9,485	4,000	9,245	14.29	50	14.49	79,793	440	80,233	664	80	638
1980	127,448	1,129,887	9,135	3,144	8,865	15.15	50	15.32	73,375	360	73,735	603	63	579
1981	129,123	1,124,843	9,002	2,573	8,711	15.54	50	15.68	71,419	300	71,718	579	51	555
1982[r]	129,499	1,191,623	9,533	2,086	9,202	16.25	50	16.36	72,608	240	72,848	587	42	563
1983	132,313	1,233,846	9,641	2,149	9,325	16.70	50	16.81	73,150	240	73,390	577	43	555

r = revised.

1 For the 50 states and District of Columbia.

2 Includes motorcycles.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

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Table 33. Fuel Consumption and Travel by Buses[1], 1973-1983

Year	Number Registered (thousands)	Total[2] Vehicle Miles Traveled (millions)	Average Miles Traveled per Vehicle			Average Miles Traveled per Gallon			Total Fuel Consumed (millions of gallons)			Average Gallons Consumed per Vehicle		
			Commercial	School	All Buses	Commercial	School	All Buses	Commercial	School	All Buses	Commercial	School	All Buses
1973	426	4,960	28,469	7,178	11,662	4.90	7.37	5.86	520	327	847	5,810	973	1,991
1974	447	5,060	28,968	6,865	11,320	4.97	7.36	5.90	525	333	858	5,827	933	1,919
1975	462	5,148	28,230	6,788	11,140	4.79	7.31	5.75	553	342	895	5,896	929	1,937
1976	478	5,761	29,936	7,502	12,044	5.05	7.34	5.98	574	390	964	5,928	1,022	2,015
1977	492	5,887	30,011	7,491	11,973	5.04	7.35	5.98	583	401	984	5,955	1,019	2,002
1978	500	6,076	30,377	7,500	12,143	5.02	7.35	5.95	615	407	1,021	6,051	1,020	2,041
1979	520	6,105	29,691	7,179	11,732	5.06	7.36	5.97	618	405	1,023	5,872	976	1,966
1980	529	6,400	32,765	7,592	12,103	5.03	7.64	5.95	696	380	1,076	6,516	994	2,034
1981	544	6,501	32,996	6,780	11,953	4.98	7.65	5.92	711	387	1,098	6,626	886	2,019
1982	559	6,639	31,524	6,870	11,872	4.96	7.68	5.93	721	399	1,120	6,356	894	2,003
1983	586	6,746	32,795	6,532	11,521	4.95	7.70	5.92	737	402	1,139	6,625	848	1,946

[1] For the 50 states and District of Columbia.
[2] Includes commercial, school and non-revenue buses.
Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

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Table 34. Fuel Consumption and Travel by Motor Trucks[1], 1973-1983

Year	Number Registered (thousands)	Total Vehicle Miles Traveled (millions)	Average Miles Traveled per Vehicle			Average Miles Traveled per Gallon			Total Fuel Consumed (millions of gallons)			Average Gallons of Fuel Consumed per Vehicle		
			Single-unit Trucks	Combinations	All Trucks	Single-unit Trucks	Combinations	All Trucks	Single-unit Trucks	Combinations	All Trucks	Single-unit Trucks	Combinations	All Trucks
1973	23,233	267,147	9,868	46,716	11,538	9.63	5.42	8.45	22,755	8,860	31,615	1,025	8,620	1,361
1974	24,630	267,519	8,981	51,667	10,861	10.01	5.55	8.57	21,125	10,101	31,226	897	9,310	1,269
1975	25,776	274,454	8,882	49,125	10,648	10.01	5.69	8.68	21,868	9,764	31,632	887	8,633	1,227
1976	27,779	307,950	9,369	48,297	11,086	9.99	5.39	8.58	24,914	10,975	35,890	938	8,961	1,292
1977	29,562	329,465	9,400	50,206	11,145	10.13	5.42	8.68	26,255	11,709	37,964	928	9,263	1,284
1978	31,703	347,906	9,249	49,267	10,974	10.10	5.39	8.64	27,780	12,491	40,271	916	9,141	1,270
1979	33,350	360,500	9,184	49,664	10,810	10.30	5.40	8.82	28,544	12,315	40,859	892	9,197	1,225
1980	33,637	384,570	10,070	42,705	11,433	11.10	5.50	9.58	29,241	10,909	40,150	907	7,764	1,194
1981	34,451	425,127	11,028	47,023	12,340	11.84	5.50	10.21	30,903	10,734	41,637	931	8,550	1,209
1982[r]	35,143	394,219	9,805	50,075	11,217	11.79	5.50	10.00	28,195	11,221	39,416	831	9,106	1,122
1983	36,548	408,514	9,705	52,424	11,178	11.87	5.50	10.00	28,853	12,005	40,858	818	9,532	1,118

r = revised.

[1] For the 50 States and District of Columbia.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

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Table 35. Fuel Consumption by Certificated Air Carriers, 1973-1983 (scheduled and nonscheduled service) (thousands of gallons)

Year	Total Certificated Route Air Carriers	Domestic Operations				International and Territorial Operations		
		Passenger/Cargo Carriers						
		Total Domestic Operations	Majors[1]	Nationals[2]	Other[3]	Total	Passenger/ Cargo Carriers	Other
1973	10,699,779	8,354,484	7,450,949	727,633	173,688[r]	2,345,294	2,143,420	201,875
1974	9,553,792	7,508,899	6,612,145	720,372	174,264[r]	2,044,893	1,864,685	180,208
1975	9,506,600	7,557,700	6,650,000	725,800	181,900[r]	1,948,900	1,756,700	192,200
1976	9,808,051	8,008,306	7,043,139	766,019	109,149[r]	1,799,745	1,635,266	164,479
1977	10,268,024	8,416,730	7,373,856	828,195	214,679[r]	1,851,294	1,683,513	167,781
1978	10,639,227	8,726,033	7,527,587	918,531	279,915[r]	1,913,194	1,741,918	171,276
1979	11,368,702	9,376,064	7,848,761	1,017,118	510,185[r]	1,992,638	1,830,001	162,637
1980	11,034,038	9,096,323	7,424,555	1,094,678	577,090[r]	1,937,715	1,764,506	173,209
1981	10,587,769	8,555,248	7,263,415[r]	1,119,021[r]	172,812[r]	2,032,520	1,654,395[r]	378,125[r]
1982	10,405,726	8,438,672	6,936,089[r]	1,231,483[r]	271,101[r]	1,967,054	1,589,285[r]	377,769[r]
1983	10,670,863	8,672,574	7,136,444[r]	1,162,543[r]	373,586[r]	1,998,289	1,670,922[r]	327,367[r]

r = revised.

[1] Prior to 1981, categorized as domestic trunk.

[2] Prior to 1981, categorized as local service.

[3] Prior to 1981, included helicopter carriers.

Note: Sum of components may not equal total due to independent rounding.

Source: 1973-1975: CAB, *Handbook of Airline Statistics*, 1973, Part II, Table 57, and advance information based on CAB Form 41, Schedule T-2(b), Quarterly Reports.

1976-1980: *Ibid.*, *Fuel Cost and Consumption, Twelve Months Ended December 31, 1980 and 1979*, Tables 1, 2, 3 ,4 ,6, 7, and similar tables in earlier editions.

1981: *Ibid.*, *Twelve Months Ended December 31, 1982 and 1981*.

1982-1983: *Ibid.*, *Twelve Months Ended December 31, 1983 and 1982*.

Table 36. Motor Fuel and Energy Consumption by the U.S. Transit Industry (at 5-Year Intervals 1955-1965 and Annually 1966-1983)

	Kilowatt Hours Consumed (in millions)				Gallons of Motor Fuel Used (in millions)		
Year	Heavy Rail	Light Rail	Trolley Coach	Total	Gasoline	Diesel Oil	Propane
1955	1,900	910	720	3,530	246.0	172.6	30.3
1960	2,098	393	417	2,908	153.6	208.1	38.3
1965	2,185	218	181	2,584	91.5	248.4	32.7
1966	2,075	226	166	2,467	76.0	256.0	33.6
1967	2,194	180	157	2,531	57.8	270.3	33.0
1968	2,250	179	157	2,586	45.7	274.2	32.2
1969	2,291	173	154	2,618	40.0	273.8	31.6
1970	2,261	157	143	2,561	37.2	270.6	31.0
1971	2,262	153	141	2,556	29.4	256.8	26.5
1972	2,149	146	133	2,428	19.6	253.3	24.4
1973	2,098	140	93	2,331	12.3	282.6	15.2
1974	n/a	n/a	n/a	2,630	7.5	316.4	3.1
1975	n/a	n/a	n/a	2,646	5.0	365.1	2.6
1976	n/a	n/a	n/a	2,576	5.2	389.2	1.0
1977	n/a	n/a	n/a	2,303	8.1	402.8	1.2
1978	n/a	n/a	n/a	2,017	8.0	362.0	0.4
1979	n/a	n/a	n/a	2,648	18.0	376.0	3.0
1980	n/a	n/a	n/a	2,793	11.0	411.0	3.0
1981	n/a	n/a	n/a	2,818	9.0	424.0	2.0
1982	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1983	n/a	n/a	n/a	3,402	9.0	462.0	2.0

n/a = not available.

Note: Data for the period July 1, 1982 through June 30, 1983 were not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.

Source: 1955-1977: American Public Transit Association, *Transit Fact Book*, 1981, Table 17.
1978-1981: UMTA, *National Mass Transportation Statistics, 1981 - 1983 Section 15 Annual Reports*, Table 002.11.1.
1983: *Ibid.*, 1984, Table 2.10.

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Table 37. Coal Consumption by End-Use Sector, 1955-1984
(million short tons)

Year	Industry and Miscellaneous						
	Electric Utilities	Coke Plants	Other Industry and Miscellaneous	Total	Transportation	Residential and Commercial	Total
1955	143.8	107.7	110.1	217.8	17.0	68.4	447.0
1960	176.7	81.4	96.0	177.4	3.0	40.9	398.1
1965	244.8	95.3	105.6	200.8	0.7	25.7	472.0
1966	266.5	96.4	108.7	205.1	0.6	25.6	497.7
1967	274.2	92.8	101.8	194.6	0.5	22.1	491.4
1968	297.8	91.3	100.4	191.6	0.4	20.0	509.8
1969	310.6	93.4	93.1	186.6	0.3	18.9	516.4
1970	320.2	96.5	90.2	186.6	0.3	16.1	523.2
1971	327.3	83.2	75.6	158.9	0.2	15.2	501.6
1972	351.8	87.7	72.9	160.6	0.2	11.7	524.3
1973	389.2	94.1	68.0	162.1	0.1	11.1	562.6
1974	391.8	90.2	64.9	155.1	0.1	11.4	558.4
1975	406.0	83.6	63.6	147.2	•	9.4	562.6
1976	449.4	84.7	61.8	146.5	•	8.9	603.8
1977	477.1	77.7	61.5	139.2	•	9.0	625.3
1978	481.2	71.4	63.1	134.5	•	9.5	625.2
1979	527.1	77.4	67.7	145.1	•	8.4	680.5
1980	569.3	66.7	60.3	127.0	•	6.5	702.7
1981	596.8	61.0	67.4	128.4	•	7.4	732.6
1982	593.7	40.9	64.1	105.0	•	8.2	706.9
1983	625.2[r]	37.0	66.0[r]	103.0	•	8.4[r]	736.7[r]
1984[p]	664.3	45.2	74.0	119.2	•	9.3	792.7

r = revised.
p = preliminary.
• = less than 0.05 million short tons. Quantities are included in the Other Industry and Miscellaneous category.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 67.

Table 38. U.S. Government Energy Use by Agency, by Source, Fiscal Years 1975 and 1984 (trillion Btu)

	Petroleum							
	Motor Gasoline	Distillate and Residual Fuel Oils	Other[1]	Total	Electricity	Natural Gas	Coal and Other[2]	Total
1975								
Defense	34.3	327.7	720.6	1,082.6	296.3	120.1	55.1	1,554.1
Energy	1.3	5.2	0.3	6.8	49.2	9.8	19.4	85.2
Postal Service	10.3	4.6	0.7	15.6	40.5	2.5	0.6	59.2
General Services Administration	0.2	2.6	0	2.7	29.3	4.9	6.1	43.0
Veterans Administration	0.6	5.6	*	6.2	16.6	14.6	1.8	39.2
Transportation	1.5	7.8	4.7	14.0	12.9	1.3	0.3	28.5
NASA	0.4	1.8	1.2	3.4	17.9	3.9	1.2	26.4
Agriculture	4.6	1.4	0.5	6.6	3.4	2.0	*	11.9
Interior	2.6	2.9	0.7	6.1	4.1	2.0	0.1	12.3
Health and Human Services	0.7	2.8	0.1	3.7	3.9	1.6	0.1	9.3
Labor	0.2	0.2	0	0.4	0.4	0.8	0	1.6
Other[3]	3.9	2.8	0.2	6.9	4.9	0.8	0.4	13.1
Total	60.8	365.2	729.0	1,155.0	479.4	164.3	85.1	1,883.8
1984[p]								
Defense	25.9	316.2	690.3	1,032.4	326.2	115.0	50.5	1,524.1
Energy	1.4	3.7	0.6	5.8	62.2	7.1	20.5	95.6
Postal Service	9.9	2.9	0.2	12.9	32.0	4.8	0.7	50.5
General Services Administration	0.1	1.1	0	1.2	29.4	3.3	4.2	38.0
Veterans Administration	0.5	2.5	*	3.1	21.3	14.3	1.3	40.0
Transportation	1.3	7.8	4.8	14.0	13.1	1.2	0.3	28.6
NASA	0.3	0.8	1.5	2.6	17.2	2.5	0.6	23.0
Agriculture	4.3	0.7	0.4	5.3	4.5	1.6	*	11.5
Interior	2.2	1.8	0.8	4.8	4.7	1.8	0.5	11.8
Health and Human Services	0.4	2.6	0.1	3.1	6.3	1.5	*	10.9
Labor	0.1	0.5	0.1	0.7	2.4	0.9	0.1	4.1
Other[3]	2.9	1.7	0.3	4.9	7.7	1.1	0.1	13.9
Total	49.4	342.2	699.1	1,090.8	527.1	155.0	78.9	1,851.7

p = preliminary.
* Less than 50 billion Btu.
1 Includes aviation gasoline, jet fuel, and liquefied petroleum gases.
2 Includes purchased steam.
3 Includes Department of Commerce, Panama Canal Commission, Tennessee Valley Authority, National Science Foundation, Department of Housing and Urban Development, Department of State, Department of Treasury, Office of Personnel Management, Interstate Commerce Commission, Small Business Administration, Federal Communications Commission, Civil Aeronautics Board, and Environmental Protection Agency.

Note: Sum of components may not equal total due to independent rounding.
These data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. However, other energy used by U.S. agencies that produce electricity or enrich uranium is included.

Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 9.

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Table 39. U.S. Government Energy Use, Fiscal Years 1975-1984
(trillion Btu)

Activity	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984[p]
AGENCY										
Defense	1,554.1	1,386.8	1,398.4	1,365.7	1,384.6	1,394.8	1,455.4	1,484.3	1,475.1	1,524.1
Energy	85.2	87.2	87.9	87.1	86.9	84.0	85.3	89.1	91.3	95.6
Postal Service	59.2	58.3	62.9	58.6	56.0	52.3	50.9	49.4	48.4	50.5
General Services Administration	43.0	41.1	41.1	41.2	40.5	38.9	39.1	38.9	37.8	38.0
Veterans Administration	39.2	36.5	37.9	39.4	38.5	38.2	37.4	38.0	38.7	40.0
Transportation	28.5	27.4	28.8	28.9	27.6	27.6	28.0	28.5	28.7	28.6
NASA	26.4	25.1	24.0	22.4	22.4	21.4	21.2	21.8	22.4	23.0
Agriculture	11.9	11.6	10.8	11.2	11.6	11.2	10.9	10.4	10.4	11.5
Interior	12.3	13.1	13.5	12.3	13.6	11.7	10.7	10.7	10.8	11.8
Health and Human Services	9.3	9.6	9.9	9.6	9.7	9.5	10.6	10.2	10.3	10.9
Labor	1.6	1.6	1.8	1.7	1.7	1.8	3.6	4.5	4.3	4.1
Other[1]	13.1	13.9	14.6	15.8	15.6	15.2	13.9	7.9	9.1	13.9
Total	1,883.8	1,712.3	1,731.6	1,694.1	1,708.7	1,706.6	1,766.9	1,793.6	1,787.5	1,851.7
ENERGY SOURCE										
Petroleum										
Motor Gasoline	60.8	58.4	59.5	58.2	57.0	54.7	51.5	49.5	48.2	49.4
Aviation Gasoline	19.7	11.6	8.8	6.2	4.7	4.9	4.6	3.5	2.5	1.8
Jet Fuel	703.9	610.0	619.2	601.1	618.6	638.7	653.3	672.6	673.2	693.5
Distillate and Residual Fuel Oil	365.2	328.9	347.7	331.3	326.3	307.2	350.9	348.6	329.0	342.2
Liquefied Petroleum Gases	5.4	4.7	4.1	3.0	3.7	3.8	3.5	3.6	3.8	3.8
Subtotal	1,155.0	1,013.6	1,039.3	999.8	1,010.3	1,009.3	1,063.8	1,077.8	1,056.7	1,090.7
Electricity	479.4	471.5	477.4	477.2	477.6	479.7	489.0	495.5	510.9	527.1
Natural Gas	164.3	150.0	139.3	142.8	146.9	145.3	140.3	143.6	145.5	155.0
Coal	77.5	70.9	67.9	65.6	64.2	63.2	64.7	68.2	62.1	64.9
Purchased Steam	7.6	6.3	7.8	8.7	9.7	9.1	9.1	8.4	12.3	13.9
Total	1,883.8	1,712.3	1,731.6	1,694.1	1,708.7	1,706.6	1,766.9	1,793.6	1,787.5	1,851.7

[p] = preliminary.

[1] Includes Department of Commerce, Panama Canal Commission, Tennessee Valley Authority, National Science Foundation, Department of Housing and Urban Development, Department of State, Department of Treasury, Office of Personnel Management, Interstate Commerce Commission, Small Business Administration, Federal Communications Commission, Civil Aeronautics Board, and Environmental Protection Agency; 1982 data do not include the Environmental Protection Agency and the Department of Treasury; 1983 data do not include the Department of Treasury.

Note: Sum of components may not equal total due to independent rounding.
These data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. However, other energy used by U.S. agencies that produce electricity or enrich uranium is included.

Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 8.

Table 40. Average Retail Price of Transportation Fuel (¢/gal.), 1974-1984

Year	Aviation Fuels			Highway Fuels				Railroad Fuel		Marine
		Jet Fuel		Motor Gasoline						
	Aviation Gasoline	Naphtha*	Kerosene	Regular	Premium	Unleaded	Truck No. 2 Diesel	Diesel	Coal ($/ton)	Bunker 'C' Fuel
1974	n/a	n/a	n/a	53.2	56.9	n/a	n/a	26.59	n/a	n/a
1975	41.1	30.7	29.8	56.7	60.9	57.1	n/a	30.00	16.90	24.66
1976	43.1	31.5	31.2	59.0	63.6	61.4	34.7	32.38	23.22	24.83
1977	47.7	35.0	35.8	62.2	67.4	65.6	39.3	36.38	33.14	27.74
1978	51.6	37.5	38.7	62.6	69.4	67.0	37.7	37.90	36.86	25.74
1979	68.9	52.3	54.7	85.7	92.2	90.3	58.5	57.58	32.99	35.91
1980	108.4	88.2	86.8	119.1	128.1	124.5	81.8	83.00	55.65	47.11
1981	130.3	105.7	102.4	131.1	147.0	137.8	99.5	100.23	58.89e	62.66
1982	131.2	97.7	96.3	122.2	141.5	129.6	94.2	95.43	63.27e	56.21
1983	125.5	n/a	87.8	115.7	138.3	124.1	82.6	82.72	63.67e	51.43
1984	123.4	n/a	84.2	112.9	136.6	121.2	82.3	n/a	n/a	n/a

n/a = not available.
e = estimate.
* Naphtha jet fuel data is no longer collected by the U.S. DOE after 1982.

Source:
Railroad Fuel, Diesel: 1975-1982: AAR, *Statistics of Railroads of Class I*, 1983, p. 15.
1974/1983: *Ibid.*, *Railroad Ten-Year Trends*, 1984, Table II-A-6.
1984: not available.
Railroad Fuel, Coal: 1974: not available.
1975-1980: AAR, *Statistics of Railroads of Class I*, 1983, p. 15.
1981-1983: U.S. DOC, *Survey of Current Business*, 1984, estimated by Transportation Policy Associates.
1984: not available.
Marine: 1974: not available.
1975-1978: U.S. DOE/EIA, *Monthly Energy Review*, 1980.
1979-1983: *Platt's Oil Price Handbook*; estimated by Transportation Policy Associates.
1984: not available.
Other data: 1974: U.S. DOE/EIA, *Monthly Energy Review*, 1984.
1975: *Ibid.*, *Monthly Energy Review*, 1980.
1976-1984: *Ibid.*, 1984, pp. 96 and 99.

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Table 41. Average Energy Prices by Transportation Sector and Energy Source, 1970-1982 (dollars per million Btu)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Transportation sector													
Petroleum*	2.32	2.39	2.39	2.59r	3.72	4.05	4.21	4.48	4.62r	6.20r	8.61r	9.78r	9.40
Distillate fuel oil	1.29	1.37r	1.37r	1.65r	2.61	2.77r	2.94r	3.28r	3.39r	5.00r	7.12r	8.46r	8.14
Jet fuel	0.78	0.82	0.82	0.97	1.67	2.18	2.39	2.75	3.05r	4.16r	6.78r	7.58	7.23
Motor gasoline	2.85	2.90	2.88	3.10	4.32	4.64	4.80	5.09	5.23	7.06	9.75	10.86	10.36
Residual fuel oil	0.36	0.49	0.53	0.64	1.41	1.45	1.52	1.68	1.51	2.38r	3.18	4.11	3.85
Electricity sales	3.74r	4.13r	4.37r	4.51r	6.45r	7.16r	7.73r	7.92r	9.54r	10.15r	12.12r	13.32r	15.28
Average	2.32	2.39	2.39	2.59r	3.72	4.05r	4.21r	4.49r	4.62r	6.21r	8.61r	9.78r	9.40

r = revised.

* In addition to listed products, includes aviation gasoline, liquefied petroleum gases, and lubricants.

Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 13.

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Table 42. Price Trend of Gasoline vs. Other Consumer Goods and Services (at 5-Year Intervals 1955-1970 and Annually 1971-1984)

	Retail Price of Regular Grade Gasoline (Cents Per Gallon)			Price Indexes of Regular and Premium Gasoline and Other Consumer Items (Index: 1967 = 100)					
Year	Service Station Price Excl. Taxes	State and Federal Taxes	Service Station Price Incl. Taxes	All Items	Food	Rent	Apparel and Upkeep	Regular and Premium Gasoline	Entertainment*
1955	21.42	7.65	29.07	80.2	81.6	84.3	84.1	83.6	76.7
1960	20.99	10.14	31.13	88.7	88.0	91.7	89.6	92.5	87.3
1965	20.70	10.46	31.15	94.5	94.4	96.9	93.7	94.9	95.9
1970	24.55	11.14	36.69	116.3	114.9	110.1	116.1	105.6	116.7r
1971	25.20	11.23	36.43	121.3	118.4	115.2	119.8	106.3	122.9r
1972	24.46	11.67	36.13	125.3	123.5	119.2	122.3	107.6	126.5r
1973	26.88	11.94	38.83	133.1	141.4	124.3	126.8	118.1	130.0r
1974	40.41	12.00	52.41	147.7	161.7	130.6	136.2	159.9	139.8
1975	45.44	11.77	57.22	161.2	175.4	137.3	142.3	170.8	152.2r
1976	47.44	12.03	59.47	170.5	180.8	144.7	147.6	100.0	159.8r
1977	50.70	12.37	65.20	181.5	192.2	153.5	154.2	106.5r	167.7r
1978	53.09	12.62	88.20	195.4	211.4	164.0	159.6	111.8r	176.6
1979	74.33	13.46	122.10	217.4	234.5	176.0	166.6	150.4r	188.5
1980	107.35	14.37	122.10	246.8	254.6	191.6	178.4	210.0r	205.3
1981	122.33e	12.97e	135.30	272.4	274.6	208.2	186.9	234.4r	221.4
1982	108.11e	14.09e	122.20	289.1	285.7	224.0	191.8	224.5r	235.8
1983	n/a	20.23e	115.73	298.4	291.7	236.9	196.5	217.8r	246.0
1984	n/a	n/a	117.90	311.1	302.9	249.3	200.2	216.3	255.1

n/a = not available.
r = revised.
e = estimated by Transportation Policy Associates.
* Includes reading materials, sporting goods, toys and hobbies, and entertainment services.
Note: In 1976, regular and premium gasoline reverted to an index of 100.
Source: Price of Regular Grade Gasoline: 1955-1980: American Petroleum Institute, *Basic Petroleum Data Book*, Section VI, Table 4/4a.
1981-1984: U.S. DOL: Bureau of Labor Statistics, personal communication.
Price Indexes of Gasoline/Consumer Items: 1955-1984: U.S. DOL: Bureau of Labor Statistics, *Consumer Price Index, All Urban Consumers*, U.S. City Averages.

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Table 43. Average Fuel Efficiency of U.S. Passenger Cars (at 5-Year Intervals 1955-1965 and Annually 1966-1983)

Year	Average U.S. Passenger Car Fuel Efficiency, (mpg)[1] (Calendar Year Basis)	New Car Fuel Efficiency, (mpg)[1] (Model Year Basis)	
		Domestic Cars	Domestic and Imported Cars
1955	14.53	16.0	16.1
1960	14.28	15.5	16.1
1965	14.07	15.4	15.9
1966	14.00	15.0	15.6
1967	13.93	14.6	15.3
1968	13.79	14.2	15.0
1969	13.63	14.1	14.9
1970	13.57	14.1	15.2
1971	13.57	13.7	14.7
1972	13.49	13.6	14.4
1973	13.10	13.3	14.2
1974	13.43	12.8	13.7
1975	13.53	15.1	16.2
1976	13.72	16.5	17.4
1977	13.94	17.7	18.8
1978	14.06	18.7	19.9
1979	14.29	19.3	20.3
1980	15.15	21.9	23.5
1981	15.54	23.5	25.2
1982	16.36[r]	24.6	26.1
1983	16.81	24.2	25.9

r = revised.

1 55% city, 45% highway miles sales weighted harmonic average.

Source: Average Passenger Car Fuel Efficiency: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.
New Car Fuel Efficiency:
1955-1977: U.S. DOT/NHTSA, NRM-21, derived from EPA historic data and contained in Report No. KII-TSC-79-1638, Fuel 2: Users'/Programmers' Guide, Oct. 1979.
1978-1983: *Ibid.*, EPA Final Fuel Economy Calculations for NHTSA.

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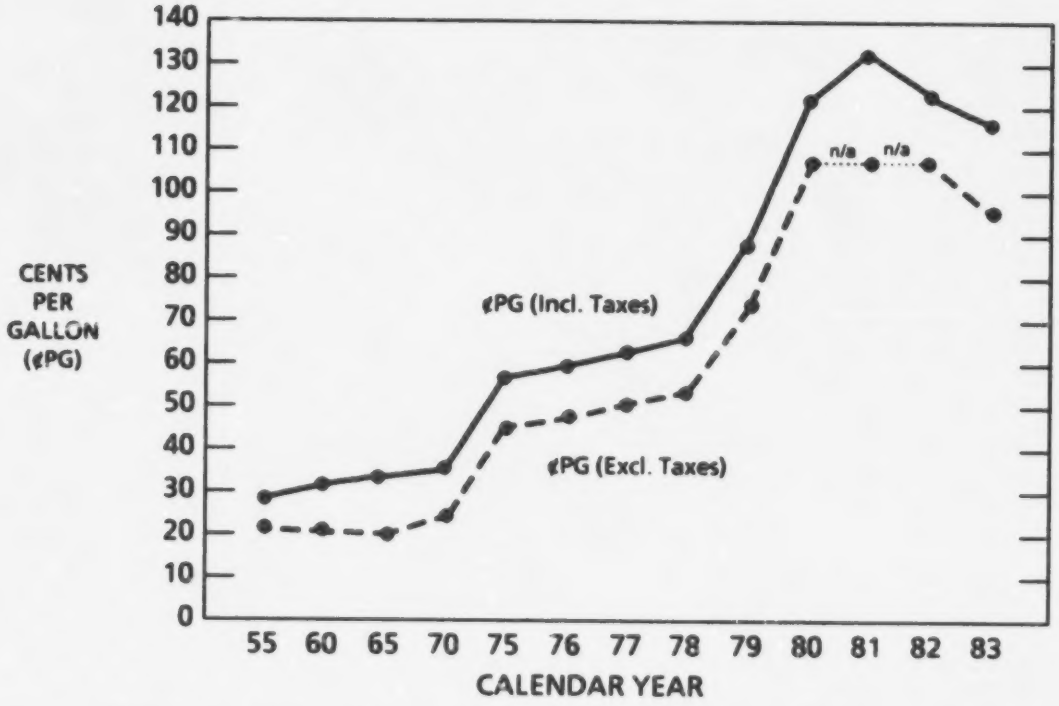

Figure 25. Price Trend of Regular Grade Gasoline Prices, 1955-1983

n/a = not available.
Source: See Appendix A, p. A-12.

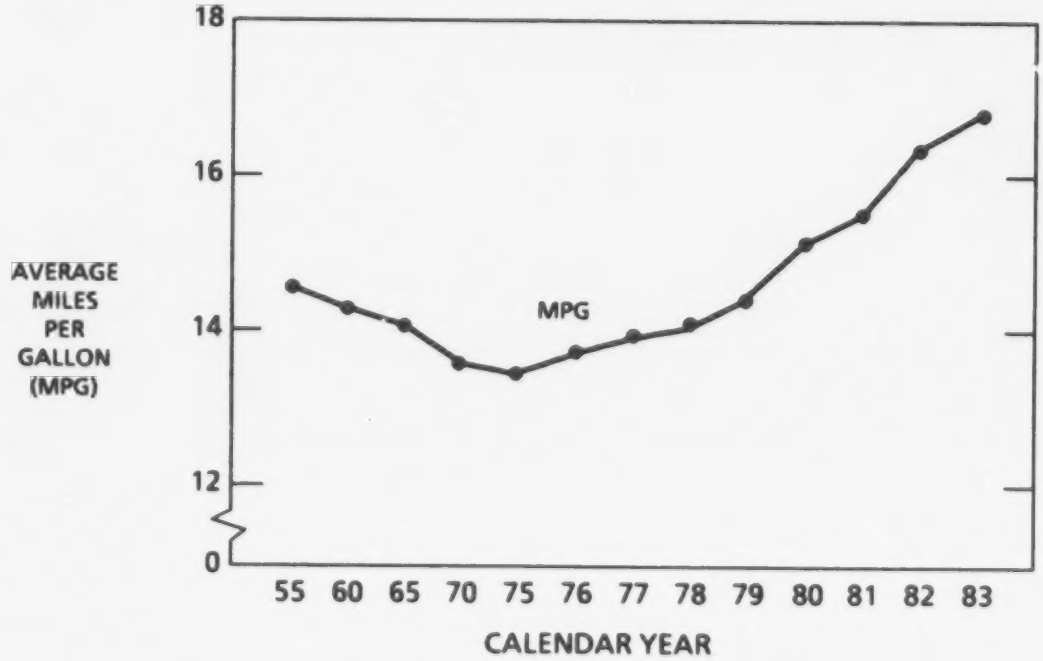

Figure 26. Average Fuel Efficiency of U.S. Passenger Cars, 1955-1983

Source: See Appendix A, p. A-12.

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Table 44. Model Year Sales, Market Shares, and Sales-Weighted Fuel Efficiencies of Domestic and Import Automobiles, Model Years 1978-1984[a]

	Domestic and Domestic-Sponsored							Import						
	1978[r]	1979[r]	1980[br]	1981	1982	1983	1984	1978[r]	1979[r]	1980[br]	1981	1982	1983	1984
MINICOMPACT														
Total sales, units	493,348	257,946	209,785	34,764	n/a	n/a	7,312	453,979	329,401	218,561	261,938	221,699	230,547	34,056
Market share, %	5.3	2.9	3.0	0.5	n/a	n/a	0.1	26.1	17.2	10.2	12.3	11.1	10.5	1.5
Fuel economy, mpg	24.4	24.3	27.1	27.0	n/a	n/a	50.0	31.4	30.6	32.1	34.6	36.5	36.5	26.6
SUBCOMPACT														
Total sales, units	1,070,487	2,092,604	1,873,462	1,353,619[r]	999,993[r]	929,861[r]	1,141,719	993,638	1,219,110	1,568,018	1,573,955	1,404,496	1,423,986[r]	1,369,211
Market share, %	11.5	23.6	26.9	20.2	17.8[r]	14.2[r]	14.3	57.1	63.6	73.5	73.6	70.1	64.7[r]	61.7
Fuel economy, mpg	21.9	24.1	25.7	27.5	28.3	27.2	28.1	28.7	27.4	29.6	31.1[r]	31.7	33.5	32.9
COMPACT														
Total sales, units	1,562,138	754,691	447,214	1,000,084[r]	1,010,467	1,497,707[r]	2,164,402	120,031	162,425	152,209	148,206	252,752	398,149[r]	580,509
Market share, %	16.8	8.5	6.4	14.9	18.0	22.9[r]	27.2	6.9	8.5	7.1	6.9	12.6	18.1[r]	26.2
Fuel economy, mpg	20.2	19.6	22.2	29.0	31.2	30.5	30.6	20.5	21.7	22.5	23.9	27.5	28.6[r]	31.1
MIDSIZE														
Total sales, units	3,657,047	3,626,613	3,057,885	3,113,806	2,530,583	2,772,300	2,999,888	4,799	15,457	15,218	n/a	2,538	6,878	59,425
Market share, %	39.3	40.9	43.9	46.5	45.1[r]	42.4[r]	37.7	0.3	0.8	0.7	n/a	0.1	0.3	2.7
Fuel economy, mpg	18.7	19.0	21.3	22.9[r]	24.0	24.3	24.2	14.0	18.1	21.1	n/a	19.0	23.0	22.2
LARGE														
Total sales, units	2,467,647	2,093,623	1,336,190	1,107,027	995,561	1,275,939	1,502,097	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Market share, %	26.6	23.6	19.2	16.5[r]	17.7	19.5[r]	18.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fuel economy, mpg	16.3	17.0	19.3	20.6	20.6	19.5	20.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TWO SEATER														
Total sales, units	43,106	39,816	37,471	88,969	79,724	61,309[r]	152,274	168,563	191,399	176,493	153,993[r]	123,205	142,133	176,694
Market share, %	0.5	0.4	0.5	1.3	1.4	0.9	1.9	9.7	10.0	8.4	7.2[r]	6.1	6.5	8.0
Fuel economy, mpg	16.5	15.1	16.9	24.4	27.4	25.6[r]	28.5	20.6	20.5	22.1	23.9	23.8	22.9	25.1
FLEET														
Total sales, units	9,293,773	8,865,293	6,962,007	6,698,869[r]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Market share, %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0[r]	100.0
Fuel economy, mpg	18.7	19.6	22.0	24.1[r]	25.0[r]	24.6[r]	25.3	27.4	26.3	28.3	30.2	30.9	31.8	31.1

n/a = not available.
r = revised.
a These figures represent only those sales that could be matched to corresponding EPA fuel economy values.
b Model year consists of 13 months, September 1979 through September 1980.
Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, Tables 2 and 3.

Table 45. Model Year Sales, Market Shares, and Sales-Weighted Fuel Efficiencies of Domestic and Import Light Trucks, Model Years 1978-1984

	Domestic and Domestic-Sponsored							Import						
	1978	1979	1980	1981	1982	1983	1984	1978	1979	1980	1981	1982	1983	1984
Small pickup														
Total sales, units	132,666	214,889	230,214	178,050	276,562	476,435r	508,595	175,924	236,659	296,198	294,561	302,781	411,1[illegible]	266,513
Market share, %	4.9	8.6	12.0	10.7	14.9r	20.9r	17.1	90.0	90.8	94.2	95.8	95.3r	94.2r	46.3
Fuel economy, mpg	27.8	25.5	26.2	26.3r	27.4r	26.2r	24.7	26.4	22.1	25.1	29.3	28.7r	28.5r	31.1
Standard pickup														
Total sales, units	1,886,782	1,630,362	1,115,248	967,242	1,000,772r	958,408	1,151,686	n/a	n/a	n/a	n/a	n/a	n/a	226,734
Market share, %	70.2	65.3	58.3	57.9	54.0r	42.0r	38.8	n/a	n/a	n/a	n/a	n/a	n/a	39.4
Fuel economy, mpg	16.6	15.8	17.0	18.5	18.4r	18.2r	17.2	n/a	n/a	n/a	n/a	n/a	n/a	27.2
Vans														
Total sales, units	667,822	580,833	328,065	327,730	379,110	484,349r	692,472	19,476	18,153	13,649	11,007	11,964	13,645r	61,114
Market share, %	24.8	23.3	17.2	19.6	20.5	21.2r	18.4	10.0	7.0	4.5	3.6	3.8	3.1	10.6
Fuel economy, mpg	16.4	14.9	16.3	17.4r	17.0r	17.2r	16.3	19.5	17.9	19.6	18.8	22.5	20.9r	23.2
Special purpose vehicle														
Total sales, units	n/a	71,662	239,262	197,679	196,034r	363,144r	618,691	n/a	5,888	3,901	2,051	2,850r	11,709r	21,506
Market share, %	n/a	2.9	12.5	11.8	10.6r	15.9r	20.8	n/a	2.3	1.3	0.7	0.9r	2.7r	3.7
Fuel economy, mpg	n/a	17.1	15.4	17.7	18.1r	20.4	20.0	n/a	13.5	13.5	14.0	14.0	20.6r	20.9
Fleet														
Total sales, units	n/a	2,497,796	1,912,789	1,670,701	1,852,478r	2,282,336r	2,971,464	n/a	n/a	n/a	n/a	n/a	n/a	575,867
Market share, %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Fuel economy, mpg	16.9	16.2	17.4	18.8	19.0r	19.5r	18.8	25.5	21.4	24.4	28.5	28.1r	27.9r	28.1

n/a = not available.
r = revised.

Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, Tables 23 and 24.

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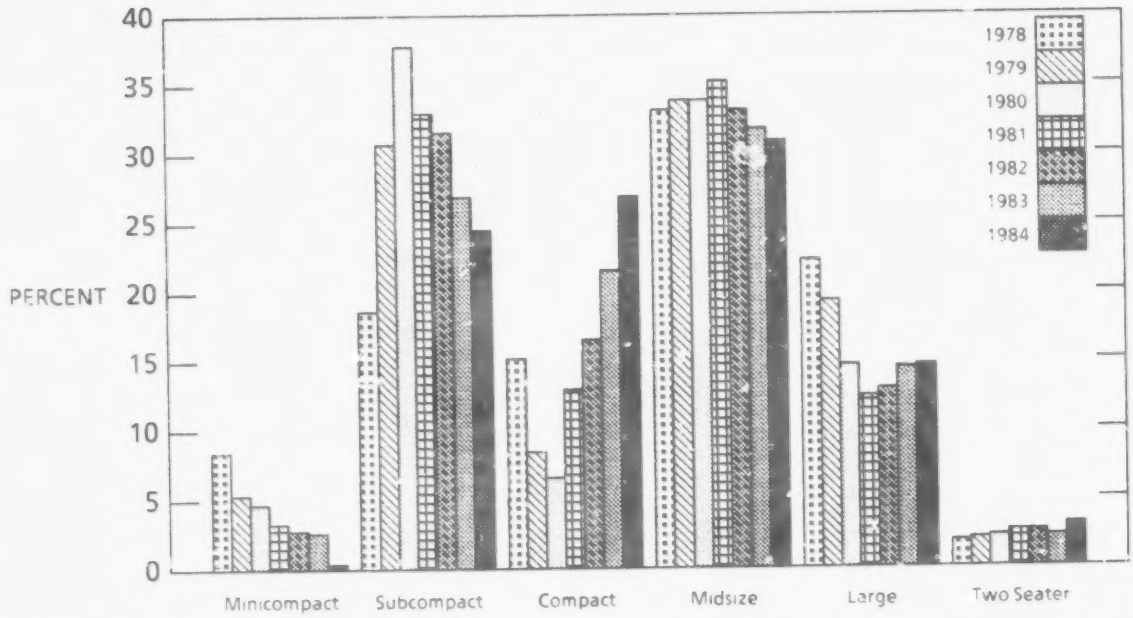
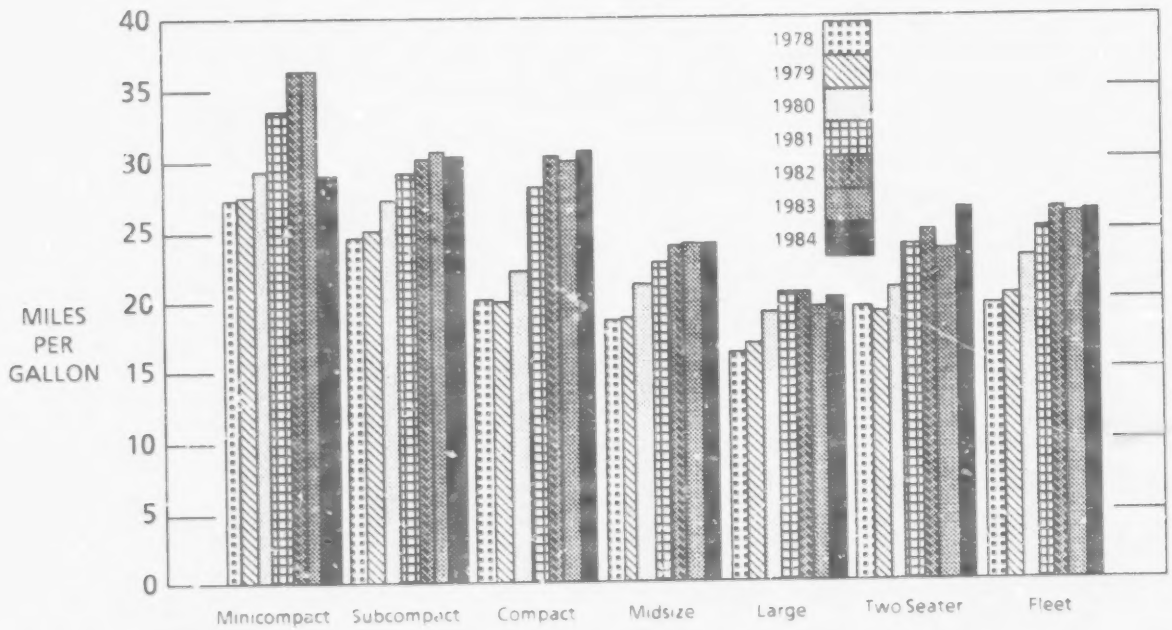
Figure 27. Market Shares of Domestic and Import Automobiles by EPA Size Classification, 1978-1984



Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, p. 12

Figure 28. Fuel Economies of Domestic and Import Automobiles by EPA Size Classification, 1978-1984



Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, p. 13

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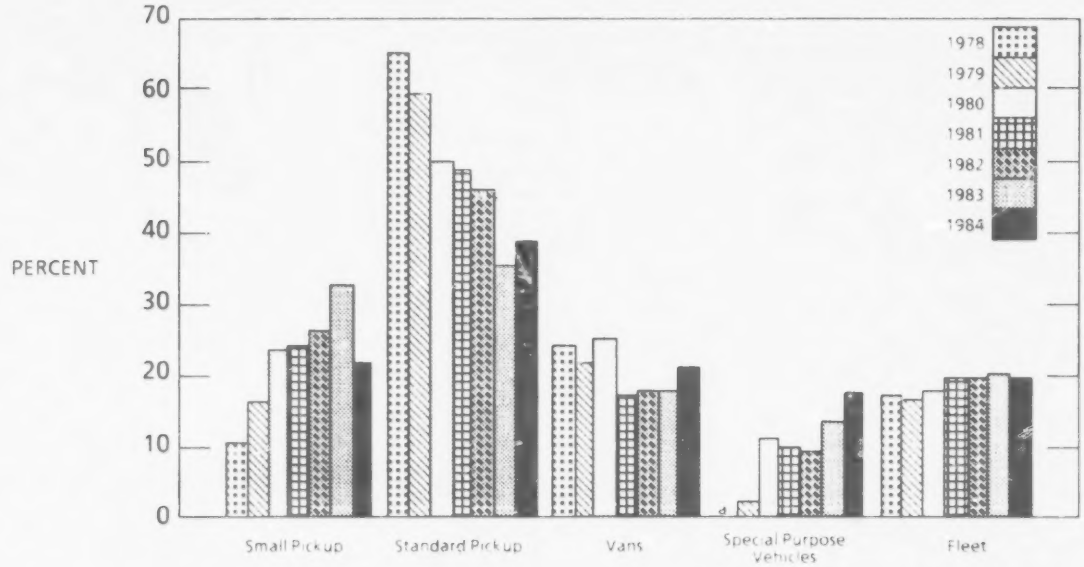
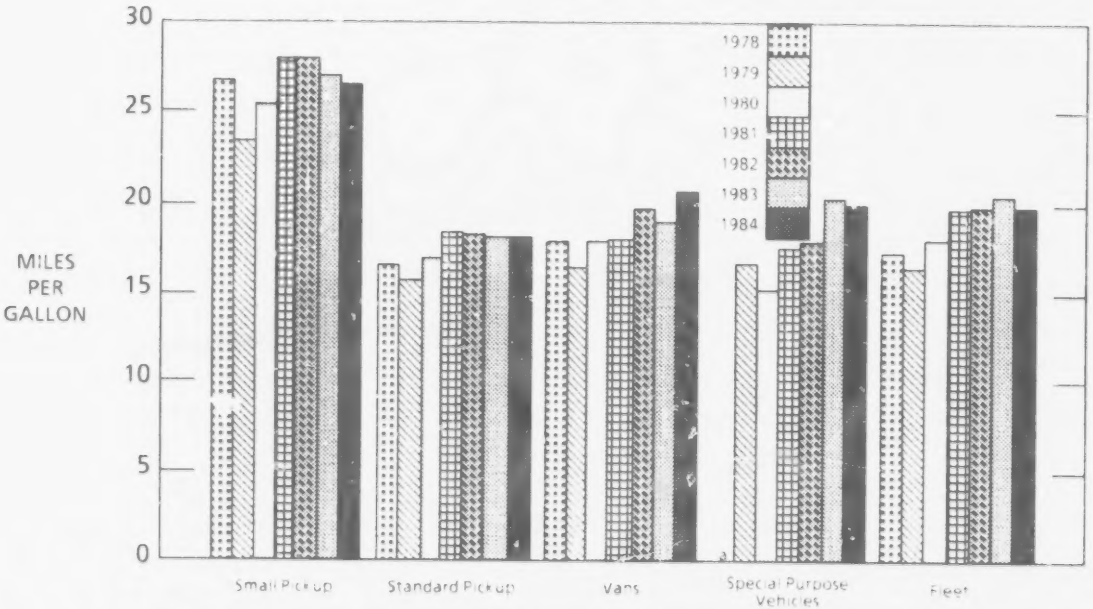
Figure 29. Market Shares of Domestic and Import Light Trucks by EPA Size Classification, 1978-1984



a = EPA fuel economy data for special purpose vehicles are not available for model year 1978.
Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, p. 41.

Figure 30. Fuel Economies of Domestic and Import Light Trucks by EPA Size Classification, 1978-1984



a = EPA fuel economy data for special purpose vehicles are not available for model year 1978.
Source: Oak Ridge National Laboratory, *Motor Vehicle MPG and Market Shares Report*, 1984, p. 48.

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Table 46. Estimated Cost of Owning and Operating a Large Size 1984 Model Automobile, Including Fuel (Total costs in dollars, costs per mile in cents)[1]

Item	First Year (14,500 miles) Total Cost	First Year (14,500 miles) Cost Per Mile	Second Year (13,700 miles) Total Cost	Second Year (13,700 miles) Cost Per Mile	Totals & Averages for Twelve Years (120,000 miles) Total Cost	Totals & Averages for Twelve Years (120,000 miles) Cost Per Mile
Cost Excluding Taxes:						
Depreciation	2,879.00	19.86	1,776.00	12.96	11,554.00	9.63
Scheduled Maintenance	(86.15)	(.59)	(110.55)	(.81)	(1,380.95)	(1.15)
Nonscheduled Repairs and Maintenance	(14.00)	(.10)	(62.36)	(.45)	(4,799.63)	(4.00)
Total Repairs and Maintenance	100.15	.69	172.91	1.26	6,180.58	5.15
Replacement Tires	19.54	.13	18.41	.13	807.60	.67
Accessories	14.12	.10	13.47	.10	198.14	.17
Gasoline	992.76	6.85	938.07	6.85	8,216.55	6.85
Oil	8.75	.06	15.75	.12	161.00	.13
Insurance	635.00	4.38	635.00	4.64	5,933.00	4.94
Parking and Tolls	136.56	.94	128.66	.94	1,128.60	.94
Total	4,785.88	33.01	3,698.27	27.00	34,179.47	28.48
Taxes and Fees:						
State:						
Gasoline	115.14	.79	108.80	.79	952.95	.79
Registration	20.00	.14	20.00	.15	240.00	.20
Titling	577.70	3.98	-	-	577.70	.48
Operating Cost Sales Tax[2]	(.10)	-	(1.27)	(.01)	(121.63)	(.10)
Nonoperating Cost Sales Tax	(1.35)	(.01)	(3.51)	(.02)	(4 4.06)	(.04)
Total Sales Tax	1.45	.01	4.78	.03	165.69	.14
Subtotal	714.29	4.93	133.58	.97	1,936.35	1.61
Federal:						
Gasoline	76.76	.53	72.53	.53	635.30	.53
Total Taxes	791.05	5.45	206.11	1.50	2,571.64	2.14
Operating Costs	1,363.61	9.40	1,345.85	9.82	16,823.26	14.02
Ownership Costs	4,213.32	29.06	2,558.53	18.68	19,927.85	16.60
Total of All Costs	5,576.93	38.46	3,904.38	28.50	36,751.11	30.62

1 This estimate covers the total cost of a medium priced, large size four-door sedan, purchased for $11,554 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

2 Where costs per mile are less than .005 cent, a dash (-) appears.

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*.

Table 47. Estimated Cost of Owning and Operating an Intermediate Size 1984 Model Automobile, Including Fuel (Total costs in dollars, costs per mile in cents)[1]

Item	First Year (14,500 miles) Total Cost	First Year (14,500 miles) Cost Per Mile	Second Year (13,700 miles) Total Cost	Second Year (13,700 miles) Cost Per Mile	Totals & Averages for Twelve Years (120,000 miles) Total Cost	Totals & Averages for Twelve Years (120,000 miles) Cost Per Mile
Cost Excluding Taxes:						
Depreciation	2,385.00	16.45	1,401.00	10.23	10,320.00	8.60
Scheduled Maintenance	(65.85)	(.45)	(108.75)	(.79)	(1,169.40)	(.97)
Nonscheduled Repairs and Maintenance	(11.34)	(.08)	(47.79)	(.35)	(4,254.55)	(3.55)
Total Repairs and Maintenance	77.19	.53	156.54	1.14	5,423.95	4.52
Replacement Tires	15.43	.11	14.54	.11	637.58	.53
Accessories	14.09	.10	13.45	.10	197.88	.16
Gasoline	803.62	5.54	759.28	5.54	6,650.64	5.54
Oil	8.75	.06	15.75	.12	161.00	.13
Insurance	732.00	5.05	732.00	5.34	6,691.00	5.58
Parking and Tolls	136.56	.94	128.66	.94	1,128.60	.94
Total	4,172.64	24.78	3,221.22	23.52	31,210.65	26.00
Taxes and Fees:						
State:						
Gasoline	93.20	.64	88.06	.64	771.34	.64
Registration	20.00	.14	20.00	.14	240.00	.20
Titling	516.00	3.56	-	-	516.00	.43
Operating Cost Sales Tax[2]	(.10)	-	(.68)	(.01)	(129.92)	(.11)
Nonoperating Cost Sales Tax	(1.34)	(.01)	(3.16)	(.02)	(32.54)	(.02)
Total Sales Tax	1.44	.01	3.84	.03	162.46	.14
Subtotal	630.64	4.35	111.90	.82	1,689.80	1.41
Federal:						
Gasoline	62.14	.43	58.71	.43	514.20	.43
Total Taxes	692.78	4.78	170.61	1.24	2,204.00	1.84
Operating Costs	1,131.14	7.80	1,113.47	8.13	14,247.83	11.87
Ownership Costs	3,734.28	25.76	2,278.36	16.63	19,166.82	15.97
Total of All Costs	4,865.42	33.56	3,391.83	24.76	33,414.65	27.84

[1] This estimate covers the total cost of a medium priced, intermediate size four-door sedan, purchased for $10,320 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

[2] Where costs per mile are less than .005 cent, a dash (-) appears.

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*.

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Table 48. Estimated Cost of Owning and Operating a Compact Size 1984 Model Automobile, Including Fuel (Total costs in dollars, costs per mile in cents)[1]

Item	First Year (14,500 miles) Total Cost	First Year (14,500 miles) Cost Per Mile	Second Year (13,700 miles) Total Cost	Second Year (13,700 miles) Cost Per Mile	Totals & Averages for Twelve Years (120,000 miles) Total Cost	Totals & Averages for Twelve Years (120,000 miles) Cost Per Mile
Cost Excluding Taxes:						
Depreciation	1,595.00	11.00	1,105.00	8.07	8,799.00	7.33
Scheduled Maintenance	(34.80)	(.24)	(108.95)	(.80)	(914.40)	(.76)
Nonscheduled Repairs and Maintenance	(9.50)	(.07)	(45.45)	(.33)	(3,788.88)	(3.16)
Total Repairs and Maintenance	44.30	.31	154.40	1.13	4,703.28	3.92
Replacement Tires	12.57	.09	11.08	.08	519.64	.43
Accessories	17.13	.12	16.32	.12	223.02	.19
Gasoline	649.05	4.48	613.31	4.48	5,371.50	4.48
Oil	8.75	.06	15.75	.11	161.00	.13
Insurance	537.00	3.70	537.00	3.92	5,170.00	4.31
Parking and Tolls	136.56	.94	128.66	.94	1,128.60	.94
Total	3,000.36	20.70	2,581.52	18.85	26,074.04	21.73
Taxes and Fees:						
State:						
Gasoline	75.28	.52	71.13	.52	622.98	.52
Registration	20.00	.14	20.00	.15	240.00	.20
Titling	439.95	3.03	-	-	439.95	.37
Operating Cost Sales Tax[2]	(.13)	-	(.68)	-	(139.62)	(.12)
Nonoperating Cost Sales Tax	(1.43)	(.01)	(2.78)	(.02)	(34.09)	(.03)
Total Sales Tax	1.56	.01	3.46	.02	173.71	.15
Subtotal	536.79	3.70	94.59	.69	1,476.64	1.24
Federal:						
Gasoline	50.18	.34	47.42	.34	415.31	.34
Total Taxes	586.97	4.04	142.01	1.03	1,891.95	1.58
Operating Costs	942.02	6.50	933.48	6.81	12,147.53	10.13
Ownership Costs	2,645.31	18.24	1,790.05	13.07	15,820.46	13.18
Total of All Costs	3,587.33	24.74	2,723.53	19.88	27,967.99	23.31

1 This estimate covers the total cost of a medium priced, compact size four-door sedan, purchased for $8,799 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

2 Where costs per mile are less than .005 cent, a dash (-) appears.

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*

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Table 49. Estimated Cost of Owning and Operating a Subcompact Size 1984 Model Automobile, Including Fuel (Total costs in dollars, costs per mile in cents)[1]

Item	First Year (14,500 miles) Total Cost	First Year (14,500 miles) Cost Per Mile	Second Year (13,700 miles) Total Cost	Second Year (13,700 miles) Cost Per Mile	Totals & Averages for Twelve Years (120,000 miles) Total Cost	Totals & Averages for Twelve Years (120,000 miles) Cost Per Mile
Cost Excluding Taxes:						
Depreciation	903.00	6.23	888.00	6.48	7,024.00	5.85
Scheduled Maintenance	(27.65)	(.19)	(73.30)	(.54)	(939.84)	(.78)
Nonscheduled Repairs and Maintenance	(8.50)	(.06)	(39.95)	(.29)	(4,440.00)	(3.70)
Total Repairs and Maintenance	36.15	.25	113.25	.83	5,379.84	4.48
Replacement Tires	11.67	.08	11.00	.08	483.20	.40
Accessories	14.62	.10	13.95	.10	202.21	.17
Gasoline	625.07	4.31	590.61	4.31	5,172.70	4.31
Oil	7.00	.05	14.00	.10	147.00	12
Insurance	635.00	4.38	635.00	4.64	5,933.00	4.95
Parking and Tolls	136.56	94	128.66	94	1,128.60	94
Total	2,369.07	16.34	2,394.47	17.48	25,470.55	21.22
Taxes and Fees:						
State:						
Gasoline	72.50	50	68.50	.50	599.93	50
Registration	20.00	14	20.00	15	240.00	20
Titling	351.20	2.42	-	-	351.20	29
Operating Cost Sales Tax[2]	(.13)	-	(1.70)	(.01)	(159.06)	(.13)
Nonoperating Cost Sales Tax	(1.33)	(.01)	(1.66)	(.01)	(38.76)	(.03)
Total Sales Tax	1.46	.01	3.36	.02	197.82	.17
Subtotal	445.16	3.07	91.86	67	1,388.95	1.16
Federal:						
Gasoline	48.33	.33	45.67	.33	399.96	.33
Total Taxes	493.49	3.40	137.53	1.00	1,788.91	1.49
Operating Costs	909.76	6.27	900.09	6.57	12,530.45	10.44
Ownership Costs	1,952.80	13.47	1,631.91	11.91	14,729.01	12.27
Total of All Costs	2,862.56	19.74	2,532.00	18.48	27,259.46	22.71

[1] This estimate covers the total cost of a medium priced, subcompact size four-door sedan, purchased for $7,024 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

[2] Where costs per mile are less than .005 cent, a dash (-) appears.

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984*.

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Table 50. Estimated Cost of Owning and Operating a 1984 Model Passenger Van, Including Fuel
(Total costs in dollars, costs per mile in cents)[1]

Item	First Year (14,500 miles) Total Cost	First Year (14,500 miles) Cost Per Mile	Second Year (13,700 miles) Total Cost	Second Year (13,700 miles) Cost Per Mile	Totals & Averages for Twelve Years (120,000 miles) Total Cost	Totals & Averages for Twelve Years (120,000 miles) Cost Per Mile
Cost Excluding Taxes:						
Depreciation	3,914.00	26.99	1,851.00	13.51	12,788.00	10.65
Scheduled Maintenance	(113.12)	(.78)	(248.72)	(1.82)	(1,943.58)	(1.62)
Nonscheduled Repairs and Maintenance	(27.00)	(.19)	(190.20)	(1.39)	(5,025.52)	(4.19)
Total Repairs and Maintenance	140.12	.97	438.92	3.21	6,969.10	5.81
Replacement Tires	16.20	.11	15.27	.11	937.47	.78
Accessories	17.40	.12	16.63	.12	355.44	.30
Gasoline	1,298.21	8.95	1,226.62	8.95	10,743.96	8.95
Oil	10.50	.07	19.25	.14	187.25	.16
Insurance	1,129.00	7.79	1,129.00	8.24	10,671.00	8.89
Parking and Tolls	136.56	.94	128.66	.94	1,128.60	.94
Total	6,661.99	45.94	4,825.35	35.22	43,780.82	36.48
Taxes and Fees:						
State:						
Gasoline	150.57	1.04	142.26	1.04	1,246.06	1.04
Registration	30.00	.21	30.00	.22	360.00	.30
Titling	639.40	4.41	-	-	639.40	.53
Operating Cost Sales Tax[2]	(.15)	-	(7.06)	(.05)	(179.52)	(.15)
Nonoperating Cost Sales Tax	(2.02)	(1.01)	(9.21)	(.07)	(74.31)	(.06)
Total Sales Tax	2.17	.01	16.27	.12	253.83	.21
Subtotal	822.14	5.67	188.53	1.38	2,499.29	2.08
Federal:						
Gasoline	100.38	.69	94.84	.69	830.73	.69
Total Taxes	922.52	6.36	283.37	2.07	3,330.02	2.77
Operating Costs	1,739.57	11.99	1,824.16	13.31	20,279.11	16.89
Ownership Costs	5,844.94	40.31	3,284.56	23.98	26,831.73	22.36
Total of All Costs	7,584.51	52.30	5,108.72	37.29	47,110.84	39.25

1 This estimate covers the total cost of a passenger van purchased for $12,788 and operated 120,000 miles over a 12-year period. Baltimore area prices, considered to be in the middle range, were used.

2 Where costs per mile are less than .005 cent, a dash (-) appears.

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984.*

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Table 51. Estimated Gasoline Cost per Mile at Various Gasoline Prices, 1984 (cents per mile, excluding taxes)

VEHICLE	GASOLINE PRICE PER GALLON				
	$1.30	$1.35	$1.40	$1.45	$1.50
Large Car	6.32¢	6.62¢	6.91¢	7.21¢	7.50¢
Intermediate Car	5.12	5.36	5.59	5.83	6.07
Compact Car	4.13	4.33	4.52	4.71	4.90
Subcompact Car	3.98	4.17	4.35	4.54	4.72
Passenger Van	8.27	8.65	9.04	9.42	9.81

Source: U.S. DOT/FHWA, *Cost of Owning and Operating Automobiles and Vans, 1984.*

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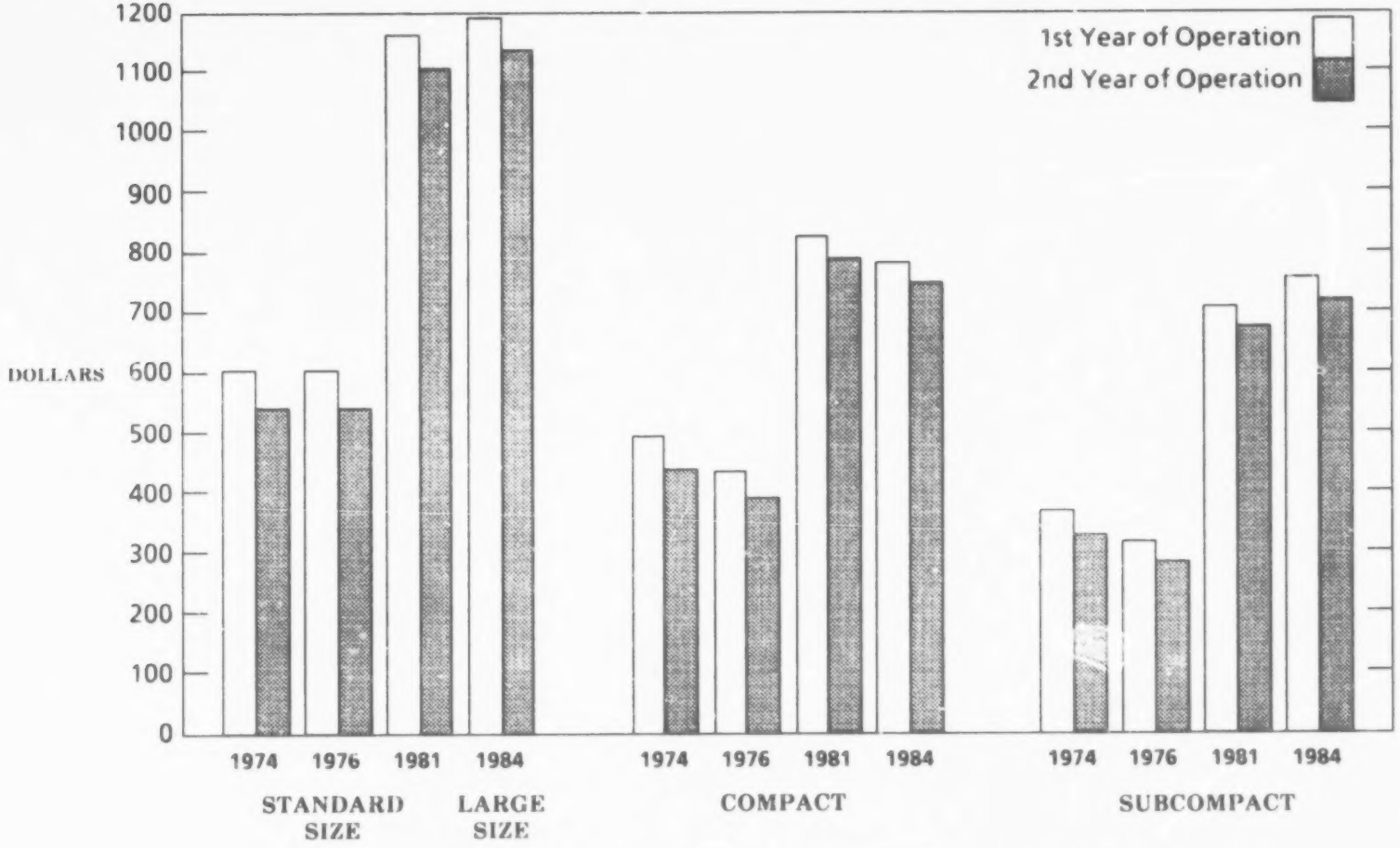

Figure 31. Estimated Annual Automobile Gasoline and Oil Costs, Including Taxes, by Size and Year of Operation

See Appendix A, p. A-12

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Table 52. Estimated Cost of Owning and Operating 1984 Model Automobiles and Vans, Including Fuel

SUBURBAN-BASED OPERATION TOTAL COSTS: CENTS PER MILE*							
SIZE	ORIGINAL VEHICLE COST DEPRECIATED	MAINTENANCE, ACCESSORIES, PARTS & TIRES	GAS & OIL (EXCLUDING TAXES)	PARKING & TOLLS	INSURANCE	STATE & FEDERAL TAXES	TOTAL COST
LARGE WITH STANDARD EQUIPMENT, WEIGHT MORE THAN 3,500 LBS. EMPTY	9.6	6.0	7.0	0.9	4.9	2.2	30.6
INTERMEDIATE WEIGHT LESS THAN 3,500 LBS. EMPTY	8.6	5.2	5.7	0.9	5.6	1.8	27.8
COMPACT WEIGHT LESS THAN 3,000 LBS. EMPTY	7.3	4.6	4.6	0.9	4.3	1.6	23.3
SUBCOMPACT WEIGHT LESS THAN 2,500 LBS. EMPTY	5.9	5.1	4.4	0.9	5.0	1.4	22.7
PASSENGER VAN WEIGHT LESS THAN 5,000 LBS. EMPTY	10.7	6.9	9.1	0.9	8.9	2.7	39.2

* Based on operations of 120,000 miles over 12 years.

Source: U.S. Department of Transportation, Federal Highway Administration, *Cost of Owning and Operating Automobiles and Vans, 1984*

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Part 2. Energy Intensiveness

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Table 53. Energy Intensiveness of Automobiles and Motorcycles, 1973-1983

Year	Auto Passenger-Miles (millions)	Motorcycle Passenger-Miles (millions)	Fuel Consumed (million gal.)		Autos (Btu/pass.-miles)	Motorcycle (Btu/pass.-miles)
			Autos	Motorcycles		
1973	2,237,094	21,553	77,619	392	4,337	2,274
1974	2,179,586	24,582	73,770	447	4,231	2,273
1975	2,261,866	24,586	76,010	447	4,201	2,273
1976	2,366,676	24,659	78,398	448	4,141	2,271
1977	2,461,028	24,823	80,226	451	4,075	2,271
1978	2,693,512	25,463	83,312	463	3,866	2,274
1979	2,623,191	24,211	79,793	440	3,802	2,272
1980	2,557,340	19,800	73,375	360	3,586	2,273
1981	2,552,639	16,500	71,418	300	3,497	2,272
1982	2,713,133	13,200	72,848	240	3,356	2,273
1983	2,810,246	13,200	73,390	240	3,264	2,273

r = revised.

Note: Passenger-mile data is based on vehicle-miles obtained from the U.S. DOT/FHWA and an average occupancy rate of 2.3 for automobiles and 1.1 for motorcycles. The heat equivalent factor used for Btu conversion is 125,000 Btu/gal.

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

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Table 54. Energy Intensiveness of Trucks, 1973-1983

Year	Vehicle Miles (millions)			Fuel Consumed (million gal.)			Btu/Vehicle-Mile		
	Single-Unit Trucks	Combinations	All Trucks	Single-Unit Trucks	Combinations	All Trucks	Single-Unit Trucks	Combinations	All Trucks
1973	219,128	48,019	267,147	22,755	8,860	31,615	12,980	25,592	15,247
1974	211,460	56,059	267,519	21,125	10,101	31,226	12,488	24,992	15,108
1975	218,894	55,560	274,454	21,868	9,764	31,632	12,488	24,375	14,894
1976	248,795	59,155	307,950	24,915	10,975	35,890	12,518	25,733	15,056
1977	266,000	63,465	329,465	26,255	11,709	37,964	12,338	25,590	14,890
1978	280,578	67,328	347,906	27,780	12,491	40,271	12,376	25,732	14,961
1979	294,000	66,500	360,500	28,544	12,315	40,859	12,136	25,686	14,635
1980	324,570	60,000	384,570	29,241	10,909	40,150	11,261	25,218	13,439
1981	366,090	59,037	425,127	30,903	10,734	41,637	10,552	25,218	12,242
1982	332,509	61,700	394,219	28,195	11,221	39,416	10,599	25,225	12,498
1983	342,484	66,030	408,514	28,853	12,005	40,858	10,531	25,217	12,502

r = revised.

Note: The heat equivalent factors used for Btu conversions are:
Automotive gasoline = 125,000 Btu/gal (single-unit trucks)
Distillate fuel = 138,700 Btu/gal (combinations)

Source: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

Table 55. Energy Intensiveness of Local Transit Buses and School Buses 1973-1983

	Vehicle-Miles (millions)		Fuel Consumed		Btu/Vehicle-Mile	
Year	Motor# Bus	School Bus	Motor# Bus (Diesel) (million gal.)	School Bus (Gasoline) (million gal.)	Motor# Bus	School Bus
1973	1,370	2,412	283	327	28,651	16,946
1974	1,431	2,450	316	333	30,628	16,990
1975	1,526	2,500	365	342	33,175	17,100
1976	1,581	2,862	389	390	34,127	17,034
1977	1,623	2,950	403	401	34,440	16,991
1978	1,329*	2,991	359*	407	37,461*	17,009
1979	1,461*	2,980	374*	405	35,506*	16,988
1980	1,541*	2,900	409*	380	36,813*	16,379
1981	1,524*	2,960	420*	387	38,224*	16,343
1982	n/a	3,062	n/a	399	n/a	16,288
1983	1,544*	3,098	417*	402	37,460*	16,220

n/a = not available.

* Data not directly comparable to prior years because of change in data source.

\# Data for the period July 1, 1982 through June 30, 1983 were not available due to changes in UMTA Section 15 reporting procedures from fiscal year basis to calendar year basis.

Note: The heat equivalent factors used for Btu conversions are:
Automotive gasoline = 125,000 Btu/gal. (School Bus)
Distillate oil = 138,700 Btu/gal. (Motor Bus)

Source: School Bus: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.
Motor Bus: 1973-1977: APTA, *Transit Fact Book*, 1981, Tables 13 and 17.
1978-1983: UMTA, *National Urban Mass Transportation Statistics, 1981-1983 Section 15 Annual Reports*, Tables 2.10 and 2.13.

Table 56. Energy Intensiveness of Class I Intercity Buses, 1974-1983

Year	Revenue Passenger-Miles (10^6)	Fuel Consumed (million gal.)	Btu/ Passenger-Mile
1974	19,500	140.7	1,001
1975	18,200	135.1	1,030
1976	16,440	134.8	1,049
1977	17,100	126.4	1,025
1978	16,230	121.9	1,042
1979	17,330	127.4	1,020
1980	17,080	132.2	1,074
1981	15,830	123.0	1,078
1982	15,890	123.1	1,075
1983	14,170	104.6	1,024

Note: The heat equivalent factor used in Btu conversion is 138,700 Btu/gal.
Source: Revenue Passenger-Miles:
1974 - 1980: ABA, *Bus Facts*, 1982, p.5.
1981 - 1983: ABA, personal communication.
Fuel Consumed:
1974 - 1983: ABA, personal communication.

Table 57. Energy Intensiveness of Class I Railroad Freight, 1973-1983

Year	Revenue Freight Ton-Miles (millions)	Fuel Consumed* (million gal.)	Btu/ Revenue Freight Ton-Mile
1973	851,809	3,664	597
1974	850,961	3,643	594
1975	754,252	3,314	609
1976	794,059	3,461	605
1977	826,292	3,537	594
1978	858,105	3,507	567
1979	901,059	3,637	559
1980	918,958	3,567	538
1981	910,169	3,429	523
1982	797,759	2,872	499
1983	828,275	2,872	481

* Diesel fuel only. Does not include electrically powered locomotives.
Note: The heat equivalent factor used for Btu conversion is 138,700 Btu/gal.
Source: Revenue Freight Ton-Miles:
1973-1982: *Statistics of Railroads of Class I*, 1983, p. 6, line 50.
1983: *Railroad Ten-Year Trends*, 1984, Table III-D-3.
Fuel Consumed:
1973-1982: *Statistics of Railroads of Class I*, 1983, p. 15, line 1.
1983: *Railroad Ten-Year Trends*, 1984, Table III-D-2.

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Table 58. Energy Intensiveness of Amtrak Service, 1973-1983

Year	Revenue Passenger-Miles (10^6)*	Fuel Consumed				Total Fuel Consumed (10^9 Btu)**	Btu/Revenue Passenger-Mile**
		Locomotive		Rail Motor Car			
		Diesel gallons (10^6)	Electric kWh (10^6)**	Diesel gallons (10^6)	Electric kWh (10^6)**		
1973	3,809	75.6	181.5	0.4	92.9	11,477	3,013
1974	4,259	64.8	182.3	0.7	94.8	10,030	2,355
1975	3,753	63.1	180.3	6.7	94.0	10,617	2,829
1976	4,268	67.1	183.3	9.8	87.6	11,590	2,716
1977	4,204	66.9	187.4	14.9	76.3	12,245	2,913
1978	4,154	69.6	197.4	17.7	64.7	13,003	3,130
1979	4,876r	70.0	247.9	7.4	79.9	11,854	2,431r
1980	4,503	63.5	253.8	5.6	43.9	10,600	2,354
1981	4,762r	48.9	215.5	3.2***	63.0	8,177	1,717r
1982	4,172r	60.9	218.7	3.7***	27.8	9,801	2,349r
1983	4,246	60.0	274.4	4.0	34.0	9,929	2,338

r = revised.

* Data are for Amtrak's fiscal year periods, ending September 30th.

** Does not include electric power generation and distribution losses; which, if included, would increase figures shown by about 20%.

*** Includes Turboliners.

Note: The heat equivalent factors used in Btu conversion are:
Diesel = 138,700 Btu/gal.
Electric = 3,412 Btu/kWh.

Source: Revenue Passenger Miles:
1973-1980: AAR, *Statistics of Railroads of Class I*, 1982, p. 18.
1981-1983: Amtrak, Marketing Dept., personal communication.
Fuel Consumed:
1973-1980: AAR, personal communication.
1981-1983: Amtrak, Government Affairs, personal communication.

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Table 59. Energy Intensiveness of Certificated Air Carriers (All Services), 1973-1983

	Aircraft Miles (millions)		Fuel Consumed (million gal.)		Passenger-Miles (millions)		Passenger Load Factor (%)		Btu/Passenger-Mile		
Year	Domestic Operations	International Operations	Domestic Operations	International Operations	Domestic Operations	International Operations	Domestic Operations	International Operations	Domestic Operations	International Operations	Total Operations
1973	2,018	379	8,354	2,345	130,720	43,900	31.6	37.5	8,628	7,211	8,271
1974	1,869	339	7,509	2,045	133,720	40,460	55.5	38.3	7,581	6,823	7,405
1975	1,885	310	7,558	1,949	136,000	37,320	54.6	52.3	7,502	7,050	7,405
1976	1,995	305	8,008	1,800	151,370	40,460	55.6	55.6	7,142	6,006	6,092
1977	2,078	319	8,417	1,851	163,220	42,860	55.8	56.4	6,962	5,830	6,726
1978	2,249	359	8,726	1,913	187,812	49,185	61.0	63.7	6,272	5,251	6,060
1979	2,471	388	9,376	1,993	212,701	57,018	62.8	63.8	5,951	4,719	5,690
1980	2,523	401	9,218	2,093	204,368	63,354	58.0	62.8	6,089	4,460	5,704
1981	2,442	356	8,555	2,033	201,435	58,629	57.4	63.7	5,733	4,681	5,496
1982	2,443	362	8,439	1,967	213,631	58,804	58.5	61.4	5,333	4,516	5,715
1983	2,539	367	8,673	1,998	231,515	62,681	59.9	64.3	5,057	4,303	4,897

Note: Heat equivalent factor used in Btu conversion is 5,670,000 Btu/barrel.

Source: Aircraft Miles:

1973-1979: CAB, *Air Carrier Traffic Statistics*, 1980, pp. 5, 15, and similar tables in earlier editions.

1980-1983: *Ibid.*, annual issues, pp. 2 and 3.

Fuel Consumed:

1973-1975: CAB, *Handbook of Airline Statistics Supplement*, 1975, 1977, p. 5, Table 2.

1976-1979: *Ibid., Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1980 and 1979*, Tables 2, 3, 4, 6, 7, and similar tables in earlier editions.

1980-1981: *Ibid., Twelve Months Ended Dec. 31, 1982 and 1981.*

1982-1983: *Ibid., Twelve Months Ended Dec. 31, 1983 and 1982.*

Passenger Miles:

1973-1979: CAB, *Air Carrier Traffic Statistics*, 1980, pp. 4, 5, and similar tables in earlier editions.

1980-1983: *Ibid.*, annual issues, pp. 2 and 3.

Passenger Load Factor:

1973-1979: CAB, *Air Carrier Traffic Statistics*, 1980, pp. 5, 15, and similar tables in earlier editions.

1980-1983: *Ibid.*, annual issues, pp. 2 and 3.

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Table 60. Energy Intensiveness of General Aviation, 1973-1983

Year	Intercity Passenger-Miles (10^6)	Fuel Consumption (million gal.) AVGAS	Fuel Consumption (million gal.) Jet Fuel	Btu/Passenger Miles
1973	10,700	411	304	8,452
1974	11,200	443	357	9,057
1975	11,400	412	453	9,709
1976	12,100	432	495	9,814
1977	12,800	456	536	9,935
1978	14,100	518	763	11,723
1979	15,500	570	736	10,830
1980	14,700	520	766	11,286
1981	14,600	489	759	11,044
1982	13,100	448	887	13,252
1983	12,700	428	613	10,566

Note: The heat equivalent factors used in Btu conversion are:
AVGAS = 5,048,000 Btu/bbl.
Jet Fuel (kerosene) = 5,670,000 Btu/bbl.

Source: Passenger-Miles Flown:
1973-1983: TPA, *Transportation In America*, March, 1985, p. 8.
Fuel Consumed:
1973-1979: U.S. DOT/FAA, personal communication.
1980-1983: *Ibid.*, Office of Management Systems, *General Aviation Activity and Avionics Survey*, 1980-1984 editions, Tables 2-18 and/or 2-21.

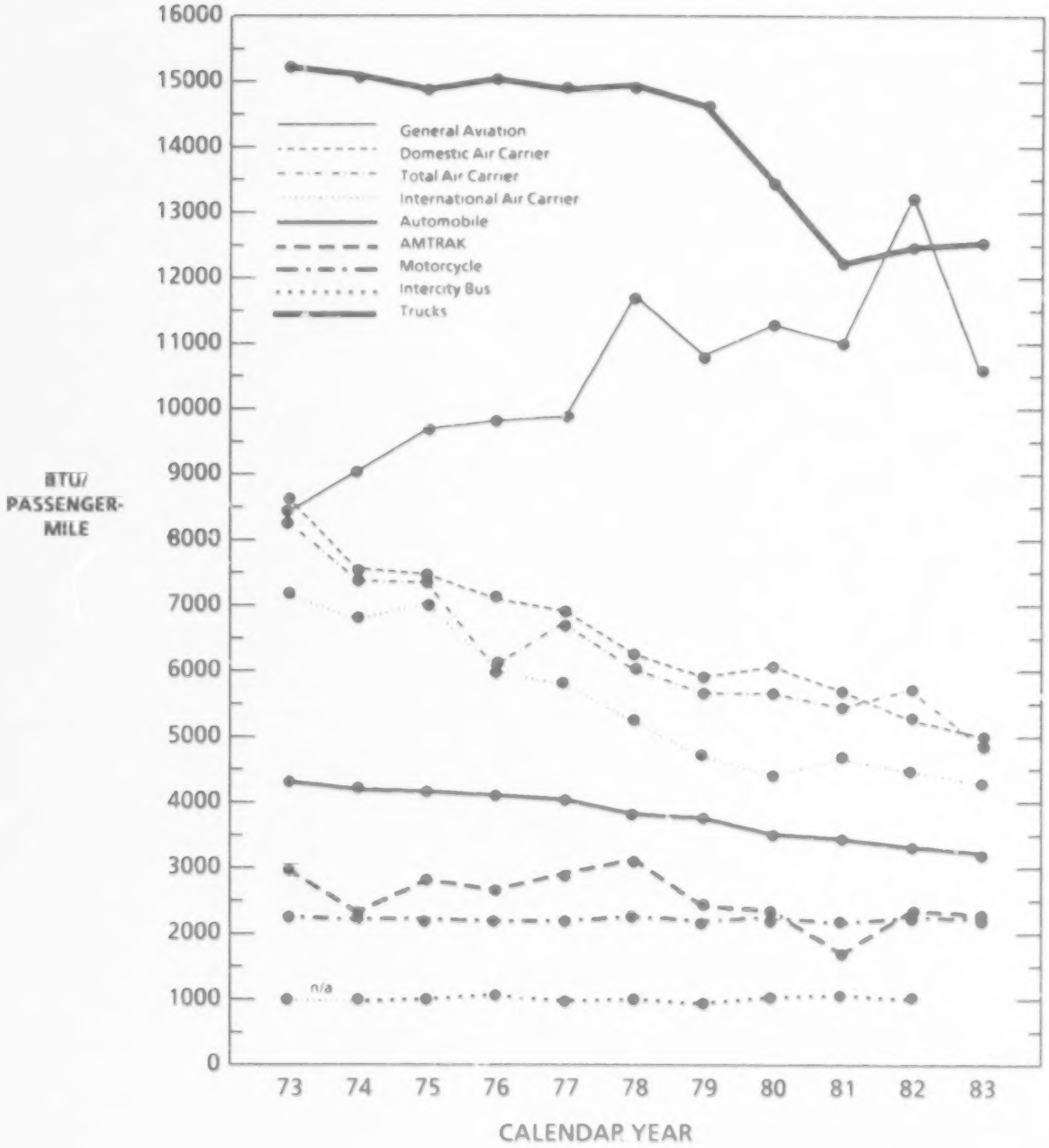

Figure 32. Energy Intensiveness by Passenger Mode, 1973-1983

n/a = not available.

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Part 3. Energy Transport

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Table 61. Energy Transported by Foreign and Domestic Waterborne Commerce, by Type of Traffic and Commodity, Calendar Year 1983 (net traffic in tons of 2,000 pounds)

Commodity	Total	Foreign		Domestic					
		Imports	Exports	Total	Coastwise	Lakewise	Internal	Local	Intra-territory
Total, all commodities[1]	1,707,661,011	387,847,325	363,292,869	956,520,817	309,636,759	83,446,847	487,132,248	73,144,961	3,160,002
Coal and lignite	229,785,460	1,125,074	73,115,680	155,544,706	4,408,597	18,717,440	125,811,466	6,607,203	-
Crude petroleum	368,580,218	181,634,194	16	186,946,008	148,844,071	10,049	35,527,336	2,564,552	-
Gasoline	85,282,751	9,763,601	574,670	74,944,480	42,048,060	569,813	23,936,542	7,887,215	502,850
Jet fuel	12,604,496	1,014,775	334	11,255,353	6,823,188	191,849	3,644,500	479,335	116,481
Kerosene	2,663,250	661,346,368	64,526	1,937,378	768,701	-	791,466	365,721	11,490
Distillate fuel oil	65,205,704	8,435,847	4,160,021	52,609,836	25,049,044	424,043	16,651,418	10,282,768	202,563
Residual fuel oil	155,636,735	41,929,774	1,169,018	102,537,943	34,698,006	454,713	38,547,914	27,310,432	1,526,878
Lubricating oils and greases	7,178,020	408,650	1,675,149	5,094,221	2,756,071	2,403	2,141,701	167,514	26,532
Naphtha, mineral spirits, solvents, *nec*	10,908,620	5,769,228	144,773	4,994,619	1,621,651	6,671	2,312,486	429,902	623,909
Asphalt, tar and pitches	9,623,419	1,539,497	129,996	7,953,926	2,852,258	159,958	4,357,509	584,201	-
Coke, petroleum coke	18,550,115	13,922	14,269,808	4,266,385	2,760	69,384	3,545,399	648,842	-
Liquefied gases, coal gases, natural gas, and natural gas liquids	7,846,605	4,524,580	2,216,784	1,105,241	240,005	378	845,825	18,883	150
Asphalt building materials	37,745		27,683	10,062	9,667	-	6	-	389
Petroleum and coal products, *nec*	4,442,539	72,466	40,054	4,330,019	1,374,764	-	2,075,597	852,794	26,864

= not calculated.

nec = not elsewhere classified.

[1] Includes the energy commodities listed in the table plus all other commodities.

Source U.S. Army, Corps of Engineers, *Waterborne Commerce of the United States*, Part 5, 1983, Section 1, Table 2, Total and SIC codes (Total, 1121, 1311, 2911-2991).

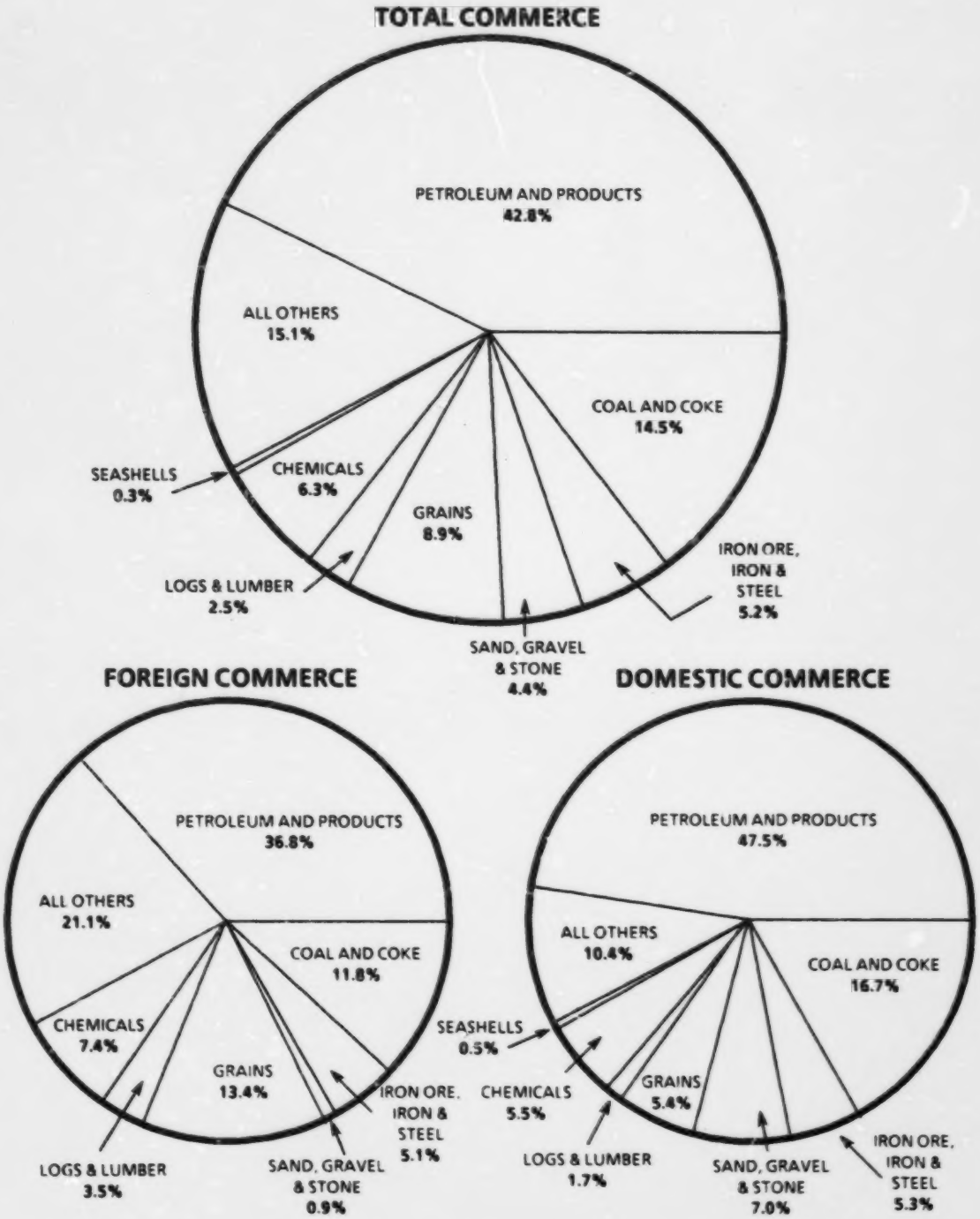

Figure 33. Principal Commodities Carried by Water, Calendar Year 1983

Source: See Appendix A, p. A-12.

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Table 62. Crude Oil Transported in the U.S. by Method of Transportation, 1973-1983 (billions of ton-miles)

	Pipelines		Water Carriers		Trucks[e]		Railroads		
Year	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Total Ton-Miles
1973	302.0	83.1	58.8	16.1	1.3	0.4	1.1	0.4	363.2
1974	303.0	84.4	53.0	14.3	1.3	0.4	1.6	0.4	358.9
1975	288.0	86.9	40.6	12.2	1.4	0.4	1.5	0.5	331.5
1976	303.0	88.1	37.8	11.0	2.1	0.6	0.9	0.3	343.8
1977	326.6	83.2	63.1	16.1	2.0	0.5	0.8	0.2	392.5
1978	359.5	57.7	261.3	41.9	2.0	0.3	0.7	0.1	623.5
1979	372.2	58.1	265.5	41.4	2.3	0.4	0.6	0.1	640.6
1980	362.6	48.2	387.4	51.4	2.5	0.3	0.5	0.1	753.0
1981	333.1	45.0	404.9	54.6	2.2	0.3	0.5	0.1	740.7
1982	335.1[r]	43.5[r]	432.7	56.2[r]	2.0	0.2[r]	0.4	0.1	770.2[r]
1983	332.4[p]	41.2	471.2	58.5	2.0	0.2	0.5	0.1	806.1

p = preliminary.
r = revised.
e = estimate.

Source: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1985, Table 2.

Table 63. Refined Petroleum Products Transported in the U.S., 1973-1983 (billions of ton-miles)

	Pipelines		Water Carriers		Trucks[e]		Railroads		
Year	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Total Ton-Miles
1973	205.0	42.7	238.0	49.5	23.7	4.9	13.7	2.9	480.4
1974	203.0	41.5	244.0	49.9	27.7	5.7	14.1	2.9	488.8
1975	219.0	42.5	257.4	50.0	26.2	5.1	12.6	2.4	515.2
1976	212.0	40.5	269.1	51.4	30.4	5.8	12.4	2.3	523.9
1977	219.4	41.3	270.2	50.9	27.6	5.2	13.7	2.6	530.9
1978	226.3	42.2	269.3	50.2	28.6	5.3	12.5	2.3	536.7
1979	236.1	44.2	257.4	48.2	27.8	5.2	12.9	2.4	534.2
1980	225.6	45.8	230.4	46.8	24.3	5.0	12.0	2.4	492.3
1981	230.6	48.3	212.3	44.4	22.7	4.8	12.1	2.5	477.7
1982	230.6[r]	51.5	184.2	41.1	20.7	4.6	12.5	2.8	448.0[r]
1983	223.7[p]	53.7	159.3	38.3	22.2	5.3	11.3	2.7	416.5

p = preliminary.
r = revised.
e = estimate.
Source: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1985, Table 3.

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Table 64. Crude Petroleum and Petroleum Products Transported in the U.S. by Method of Transportation, 1973-1983 (billions of ton-miles)

	Pipelines		Water Carriers		Trucks[e]		Railroads		
Year	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Ton-Miles	Percent of Total	Total Ton-Miles
1973	507.0	60.10	296.8	35.18	25.0	2.96	14.8	1.76	843.6
1974	506.0	59.69	297.0	35.04	29.0	3.42	15.7	1.85	847.7
1975	507.0	59.88	298.0	35.20	27.6	3.26	14.1	1.66	846.7
1976	515.0	59.35	306.9	35.37	32.5	3.75	13.3	1.53	867.7
1977	546.0	59.13	333.3	36.09	29.6	3.21	14.5	1.57	923.4
1978	585.8	50.49	530.6	45.73	30.6	2.64	13.2	1.14	1,160.2
1979	608.3	51.78	522.9	44.51	30.1	2.56	13.5	1.15	1,174.8
1980	538.2	47.24	617.8	49.61	26.8	2.15	12.5	1.00	1,245.3
1981	563.7	46.27	617.2	50.66	24.9[r]	2.04	12.6	1.03	1,218.4[r]
1982	565.7[r]	46.44[r]	616.9	50.64[r]	22.7	1.86	12.9	1.06[r]	1,218.2[r]
1983	556.1[p]	45.49	630.5	51.57	24.2	1.98	11.8	0.96	1,222.6

p = preliminary.
r = revised.
e = estimate.
Source: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1985, Table 1.

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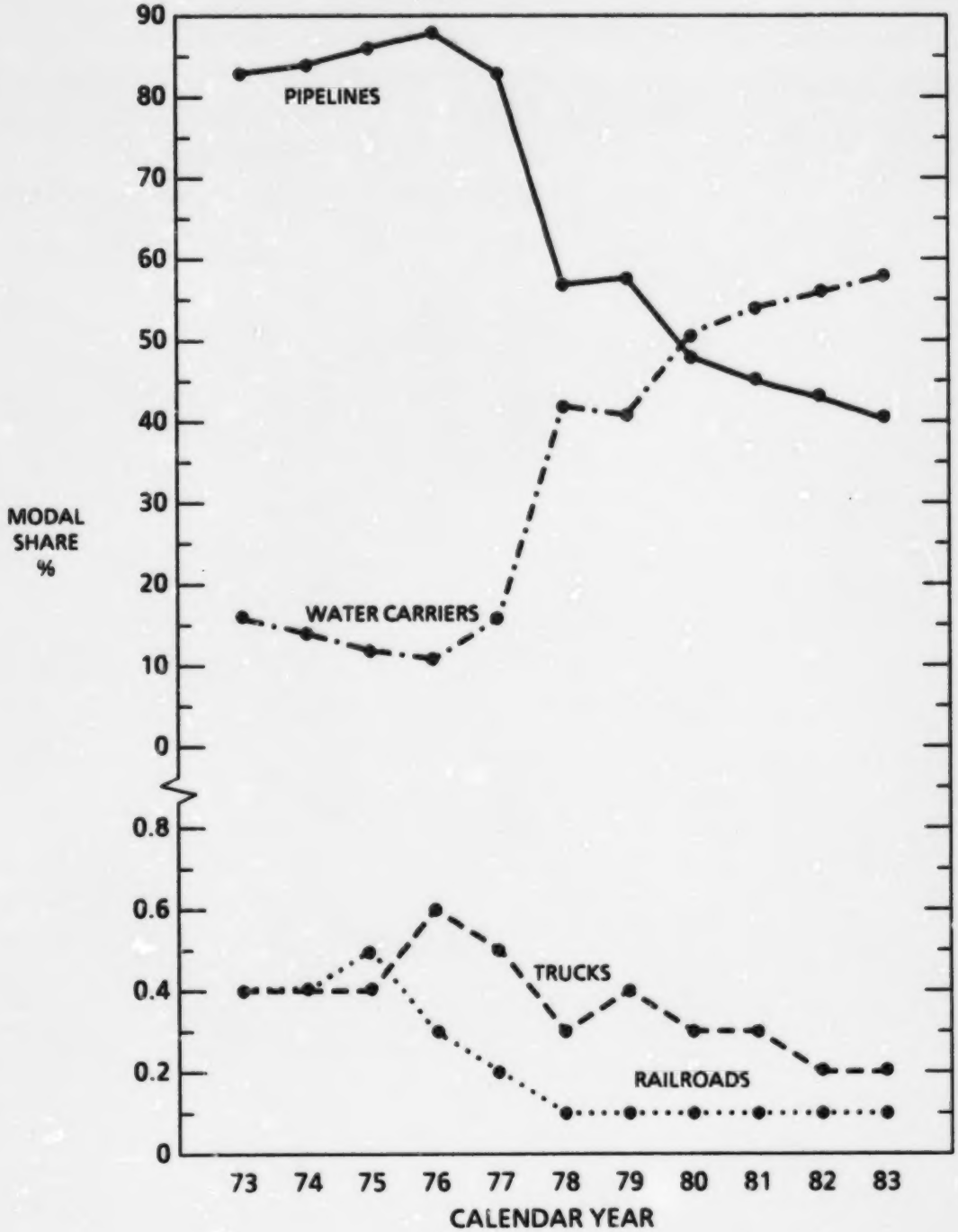

Figure 34. Crude Petroleum and Petroleum Products Transported in the U.S. by Modal Share, 1973-1983

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Table 65. Pipeline Shipments of Energy, 1973-1983

Year	Natural Gas Domestic (consumption) (billion cubic feet)	Total Petroleum Transported (billion ton-miles)	Crude Petroleum (billion ton-miles)	Refined Petroleum Products (billion ton-miles)	Energy Use (trillion Btu)
1973	22,966	507.0	302.0	205.0	946.0[r]
1974	22,111	506.0	303.0	203.0	881.5[r]
1975	20,410	507.0	288.0	219.0	784.9[r]
1976	20,801	515.0	303.0	212.0	752.7[r]
1977	19,521	546.0	326.6	219.4	731.2[r]
1978	19,627	585.8	359.5	226.3	731.7[r]
1979	20,241	608.3	372.2	236.1	807.4[r]
1980	19,877	588.2	362.6	225.6	843.6[r]
1981	19,404	563.7	333.1	230.6	851.8
1982	18,000	565.7[r]	335.1[r]	230.6[r]	802.5[r]
1983	16,835	556.1[p]	332.4[p]	233.7	688.3

p = preliminary.
r = revised.

Source: 1973-1983: Natural Gas: U.S. DOE *Annual Energy Review 1984*, Table 60.
Total Petroleum: Association of Oil Pipelines, *Shifts in Petroleum Transportation*, 1984, Table 1.
Crude Petroleum: *Ibid.*, Table 2.
Refined Petroleum Products: *Ibid.*, Table 3.
1973-1981: Energy Use: Oak Ridge National Laboratory, *Transportation Energy Data Book*, Editions 6 and 7, Table 3.8.
1982-1983: *Ibid.*, personal communication.

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Table 66. U.S. Petroleum Pipeline Mileage (as of December 31) (at 3-Year Intervals 1956-1965 and Annually 1970-1983)

Year	Crude-Oil Trunk Lines		Refined-Oil Trunk Lines		Total Trunk Lines		Crude-Oil Gathering Lines		Total Petroleum Pipelines	
	FERC* Lines	All Lines[1]	FERC* Lines	All Lines[1]	FERC* Lines	All Lines[1]	FERC* Lines	All Lines[1]	FERC* Lines	All Lines
1956	61,885	78,594	29,465	36,420	91,350	115,014	51,336	73,526	142,686	188,540
1959	61,860	70,317	37,732	44,483	99,592	114,800	49,567	75,182	149,159	189,982
1962	61,702	70,355	45,288	53,200	106,990	123,555	48,063	76,988	155,053	200,543
1965	63,981	72,383r	50,791	61,443r	114,772	133,826r	46,640	77,041r	161,412	210,867r
1970	63,030	75,143	59,335	72,396	122,365	147,539	46,587	71,132	175,735[2]	218,671
1971	60,946	75,512r	61,525	74,277r	122,471	149,789r	45,759	70,110r	174,722[2]	219,899
1972	59,757	75,881r	64,701	76,158r	124,458	152,039r	42,893	69,088r	173,532[2]	221,127
1973	57,435	76,250	64,919[3]	78,038	122,354[3]	154,288	41,655	69,247	170,691[2]	223,535
1974	57,602	76,824r	68,609[3]	79,124r	126,211[3]	155,948r	41,577	68,764r	173,341[2]	224,712
1975	54,658	77,398r	66,620[3]	80,210r	121,278[3]	157,608r	42,582	68,281r	172,680[2]	225,889
1976	58,544	77,972	67,913[3]	81,296	126,457[3]	159,268	39,235	67,798	174,072	227,066
1977	59,739	78,483	60,099	74,995	119,838	153,478	34,703	66,580	154,541	220,058r
1978	59,981	75,483	65,114	77,314	125,095	152,797	36,539	65,368	161,634	218,165r
1979	58,606	71,876	74,261	85,905	132,867	157,781	36,927	58,179	169,794	215,960r
1980	59,560	71,568	74,510	88,562	134,070	160,130	35,279	58,263	169,349	218,393r
1981	57,504	68,486	76,353	89,456	134,257	157,942	38,558	57,099	172,815	215,041r
1982	59,567	69,529	77,402r	90,727	131,969	160,256	35,580	53,421	172,549	213,677
1983	57,466	67,077	79,387	93,054	136,853	160,131	30,966	47,688	167,819	207,819

r = revised.

* Data is for Federal Energy Regulatory Commission lines, prior to 1976, they were regulated by the ICC.

: Triennial Data.

[2] Total mileage includes pipelines classified as "other than owned" by the ICC. In 1967 "other than owned" pipeline mileage was 6,255 miles.

[3] Includes 273 miles of coal slurry pipeline.

Source: FERC Lines: 1956-1976: Interstate Commerce Commission, *Transport Statistics in the United States*, 1976, Table 2 and equivalent tables in earlier editions.
1977-1981: Penn Well Publishing Co., *Oil and Gas Journal*, 1979-1982.
1982: Federal Energy Regulatory Commission, personal communication.
1983: Penn Well Publishing Co., *Oil and Gas Journal*, 1984.

All Lines: 1956-1976: U.S. DOE, *Energy Data Reports*, Crude Oil and Product Pipelines, Triennial, 1977, Table 1.
1977-1983: Penn Well Publishing Co., *Oil and Gas Journal*, 1984 and previous issues.

Total Petroleum (All Lines):
1956-1965: TAA, *Transportation Facts and Trends*, 1978, p. 31; 1981, p. 13.
1970-1983: TPA, *Transportation in America*, 1985, p. 21.

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Table 67. U.S. Gas Utility Industry Miles of Pipeline and Main, by Type[1] (At 5-Year Intervals 1955-1965 and Annually 1966-1983) (thousands)

Year	Total	Field and Gathering	Transmission Pipeline[3]	Distribution Main
1955	496.7	45.7	145.9	305.1
1960[2]	630.9	55.8	183.7	391.4
1965	767.5	61.7	211.3	494.5
1966	799.6	63.0	217.0	519.6
1967	828.3	63.7	225.4	539.2
1968	861.6	64.4	234.5	562.7
1969	891.6	64.9	248.1	578.6
1970	913.3	66.3	252.2	594.8
1971	931.4	66.2	254.8	610.4
1972	948.1	66.9	258.1	623.1
1973	962.9	65.9	263.1	633.8
1974	974.1	66.4	262.2	645.6
1975	979.3	68.5	262.6	648.2
1976	987.7	70.3	258.2	659.1
1977	998.9	71.5	260.5	666.9
1978	1,013.0	74.9	260.6	677.5
1979	1,029.8	77.8	263.5	688.5
1980	1,051.8	83.5	266.5	701.8
1981	1,069.8	86.2	269.5	714.1
1982	1,083.5[r]	90.5	271.7	721.2[r]
1983	1,095.1	91.9	273.5	729.7

r = revised.

1 Excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of the end of each year.

2 These figures and those for subsequent years include Hawaii and Alaska.

3 Includes 3,300 miles of Underground Storage pipe in 1972; 3,400 miles in 1973; 4,900 miles in 1974; 5,000 miles in 1975; 5,300 miles in 1976; 5,200 miles in 1977; 6,000 in 1978; 5,700 in 1979; 6,200 in 1980; 7,800 in 1981; 5,500 in 1982; and 5,900 in 1983, some of which was formerly included in Field and Gathering pipe.

Source: 1955: American Gas Association, *Gas Facts*, 1980, Table 44.
1960-1983: *Ibid.*, 1983, Table 5-1.

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Table 68. World Tanker Fleet By Size, 1973-1983
(million d.w.t.)

Size	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
10 - 25,000 d.w.t.	22.6	21.9	19.7	17.5	16.1	14.8	14.2	14.1	13.8	13.5	13.0
25 - 45,000 d.w.t.	29.5	30.5	28.8	27.3	26.6	24.6	24.2	24.6	26.0	27.2	27.4
45 - 65,000 d.w.t.	22.4	22.6	21.9	19.9	18.2	16.1	15.3	16.1	16.6	16.1	15.3
65 - 125,000 d.w.t.	41.6	46.4	51.2	54.4	54.2	50.8	51.2	52.5	55.4	51.8	48.4
125 - 205,000 d.w.t.	14.8	18.0	23.6	28.7	32.3	33.3	33.4	33.0	31.2	30.2	28.8
205 - 285,000 d.w.t.	78.2	105.5	125.9r	138.8	142.2	142.6	142.2	139.1	131.2	118.3	104.4
285,000 d.w.t. and over	6.5	10.9	20.3	34.1	42.9	46.3	47.4	45.4	46.0	46.6	45.9
Total	**215.6**	**255.8**	**291.4**	**320.7**	**332.5**	**328.5**	**327.9**	**324.8**	**320.2**	**303.7**	**283.2**

r = revised.
d.w.t. = deadweight tons.
Source: British Petroleum Co., *BP Statistical Review of the World Energy*, 1983, p. 18.

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Table 69. World Tanker Fleet by Flag, 1973-1983 (million d.w.t.)

Flag	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Liberia	59.2	73.9	89.6	99.7	107.5	103.4	102.5	100.3	91.6	84.4	76.4
Panama	7.6	8.4	8.8	10.1	10.1	9.6	11.7	12.2	14.4	15.9	15.0
U.S.A.	9.5	10.4	10.6	11.6	13.1	14.4	15.7	16.2	16.4	16.8	16.5
France	9.6	11.8	12.8	14.7	14.9	15.1	15.4	15.0	13.2	11.6	10.4
Greece	12.6	13.9	15.9	17.0	18.0	18.0	22.0	22.8	27.0	23.7	21.1
Norway	21.2	23.9	26.1	29.6	28.7	26.7	24.4	24.0	24.4	21.2	18.9
United Kingdom	27.8	32.2	32.7	30.8	28.9	28.4	24.8	24.8	21.3	17.6	15.3
Other Western Europe	26.0	31.8	35.6	39.5	41.1	41.3	39.4	37.1	36.6	35.4	34.9
Japan	26.1	29.2	31.8	32.4	29.4	29.3	30.0	30.0	29.7	28.5	26.3
Others	10.6	13.7	19.1	26.0	30.8	31.9	32.1	32.2	35.4	39.0	39.1
TOTAL NCW*	210.2	249.2	283.0	311.4	322.5	318.1	318.0	314.6	310.0	294.1	273.9
CPES**	5.4	6.6	8.4	9.3	10.0	10.4	9.9	10.2	10.2	9.6	9.3
TOTAL WORLD	215.6	255.8	291.4	320.7	332.5	328.5	327.9	324.8	320.2	303.7	283.2

d.w.t. = deadweight tons.
* NCW = Non-Communist World.
** CPES = Centrally-Planned Economies (China, USSR, etc.)
Source: British Petroleum Company, *BP Statistical Review of World Energy*, 1983, p. 18.

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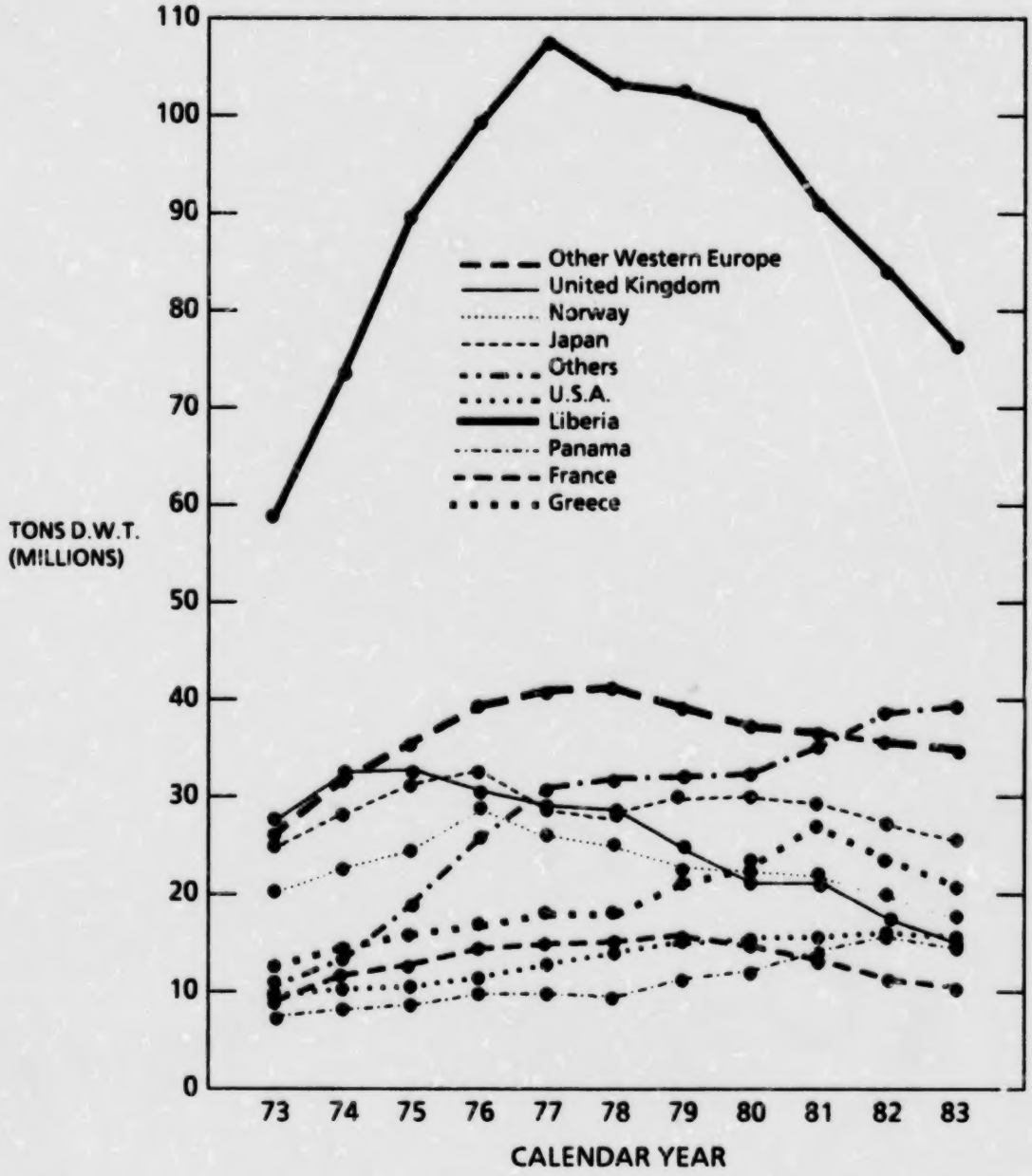

Figure 35. World Tanker Fleet by Flag, 1973 - 1983

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Table 70. U.S. Tank Ship Fleet
(Ocean-going Vessels of 2,000 Gross Tons and Over)
(At 5-Year Intervals 1955-1965 and Annually 1966-1984)

Actual Fleet				
Year[1]	Number	Gross Tons	Deadweight Tons	Average Speed (Knots)
1955	490	5,094,900	7,989,500	15.1
1960	478	5,664,000	8,894,600	15.7
1965	410	5,479,800	8,733,500	16.0
1966	337	5,343,700	8,549,900	16.1
1967	382	5,322,800	8,550,700	16.1
1968	380	5,337,300	5,655,700	16.1
1969	365	5,319,400	8,797,900	16.1
1970	350	5,305,800	8,911,002	16.2
1971	347	5,453,100	9,218,250	16.3
1972	328	5,411,300	9,253,330	16.4
1973	312	5,507,000	9,525,200	16.3
1974	306	5,798,068	10,236,221	16.4
1975	293	5,943,289	10,601,370	16.4
1976	290	6,357,974	11,565,138	16.4
1977	254	6,486,000	11,950,200	16.0
1978	271	7,449,900	13,589,200	16.0
1979	281	8,493,900	15,455,600	16.0
1980	269	7,621,000	14,720,000	16.3*
1981	274	7,837,000	15,153,800	16.5
1982	269	7,792,100	15,100,300	15.6
1983	287	8,989,600	16,462,400	16.0
1984	286	8,963,600	16,445,700	15.7

n/a = not available.
e = estimate.
[1] As of December 31, unless otherwise indicated.

Source: 1955-1976: Sun Oil Company, Division of Planning and Industry Affairs, *Analysis of World Tank Ship Fleet*, 1977, Table 1, and equivalent table in earlier editions.
1977-1984: Actual Fleet; U.S. DOT/Maritime Administration, Mar 573, (Report E2-17).

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Part 4. Energy Supply and Demand

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Table 71. Domestic Demand for Refined Petroleum Products Supplied to End-Use Sectors (at 5-Year Intervals 1955-1985 and Annually 1966-1984) (million barrels per day)

Year	Residential and Commercial	Industrial	Transportation	Transportation as % of Total	Electric Utilities[1]	Total
1955	1.40	2.39	4.46	52.7	0.21	8.46
1960	1.71	2.71	5.14	52.4	0.24	9.80
1965	1.91	3.25	6.03	52.4	0.32	11.51
1966	1.94	3.41	6.35	52.5	0.39	12.08
1967	2.02	3.45	6.65	52.9	0.44	12.56
1968	2.10	3.59	7.18	53.6	0.52	13.39
1969	2.16	3.78	7.51	53.1	0.69	14.14
1970	2.18	3.82	7.77	52.9	0.93	14.70
1971	2.18	3.86	8.08	53.1	1.09	15.21
1972	2.25	4.20	8.55	52.3	1.36	16.37
1973	2.23	4.49	9.05	52.3	1.54	17.31
1974	2.04	4.30	8.84	53.1	1.48	16.65
1975	1.95	4.04	8.95	54.8	1.39	16.32
1976	2.12	4.45	9.37	53.7	1.52	17.46
1977	2.14	4.83	9.75	52.9	1.71	18.43
1978	2.07	4.88	10.14	53.8	1.75	18.85
1979	1.73	5.35	10.00	54.0	1.44	18.51
1980	1.52	4.84	9.55	56.0	1.15	17.06
1981	1.33	4.28	9.48	59.1	0.96	16.06
1982	1.24	4.06	9.30	61.0	0.69	15.30
1983	1.21[r]	3.93[r]	9.41[r]	61.7[r]	0.65	15.23[r]
1984[e]	1.27	4.15	9.72	61.9	0.56	15.71

r = revised.
e = estimate.
1 These data are deliveries to electric utilities and do not equate to consumption by electric utilities.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 50.

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Table 72. Domestic Demand for Refined Petroleum Products Supplied to End-Use Sectors (at 5-Year Intervals 1955-1965 and Annually 1966-1984) (trillion Btu's per day)[1]

Year	Residential and Commercial	Industrial	Transportation	Transportation as % of Total	Electric Utilities[2]	Total
1955	7.85	14.02	24.12	51.0	1.31	47.30
1960	9.53	15.72	27.69	50.9	1.50	54.44
1965	10.57	18.61	32.49	51.0	2.01	63.67
1966	10.71	19.50	34.23	51.2	2.44	66.83
1967	11.06	19.59	35.87	51.8	2.76	69.27
1968	11.45	20.24	38.76	52.6	3.26	73.70
1969	11.66	21.15	40.53	52.2	4.32	77.66
1970	11.78	21.38	41.60	51.6	5.81	80.89
1971	11.75	21.59	43.57	52.0	6.81	83.72
1972	12.08	23.35	46.08	51.2	8.48	90.03
1973	12.01	24.99	48.84	51.2	9.62	95.46
1974	10.97	23.81	47.68	52.0	9.23	91.64
1975	10.45	22.33	48.26	53.8	8.69	89.70
1976	11.41	24.64	50.56	52.6	9.50	96 10
1977	11.53	26.82	52.67	51.8	10.69	101 70
1978	11.42	27.06	54.83	52.6	10.94	104.03
1979	9.46	28.98	54.30	53.4	9.01	101.69
1980	8.31	26.02	51.95	55.6	7.19	93.47
1981	7.19	22.73	51.51	58.9	6.01	87.49
1982	6.69	21.36	50.43	60.9	4.32	82.85
1983	6.37[r]	20.74[r]	49.67[r]	61.3	4.25	82.33[r]
1984[e]	6.69	21.77	52.71	62.2	3.50	84.72

[r] = revised.
[e] = estimate.
[1] Data derived by multiplying figures on source page by conversion factors in each end-user sector column on page 258 in U.S. DOE's *Annual Energy Review 1984*.
[2] These data are deliveries to electric utilities and do not equate to consumption by electric utilities.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 50.

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Table 73. Petroleum Supply and Disposition
(At 5-Year Intervals 1955-1965 and Annually 1966-1984)
(million barrels per day)

	Supply									Disposition			
	Production			Imports			Other						
Year	Crude Oil[1]	Natural Gas Plant Liquids	Total Production	Crude Oil[2]	Petroleum Products	Total Imports	Change in Stocks[3]	Other Supply[4]	Total Supply	Exports	Crude Oil Losses	Refined Petroleum Products Supplied	Total Disposition
1955	6.81	0.77	7.58	0.78	0.47	1.25	*	0.04	8.86	0.37	0.04	8.46	8.86
1960	7.04	0.93	7.96	1.02	0.80	1.81	0.08	0.15	10.01	0.20	0.01	9.80	10.01
1965	7.80	1.21	9.01	1.24	1.23	2.47	0.01	0.22	11.71	0.19	0.01	11.51	11.71
1966	8.30	1.28	9.58	1.22	1.35	2.57	-0.10	0.25	12.29	0.20	0.01	12.08	12.29
1967	8.81	1.41	10.22	1.13	1.41	2.54	-0.17	0.29	12.88	0.31	0.01	12.56	12.88
1968	9.10	1.50	10.60	1.29	1.55	2.84	-0.15	0.35	13.64	0.23	0.01	13.39	13.64
1969	9.24	1.59	10.83	1.41	1.76	3.17	0.05	0.34	14.38	0.23	0.01	14.14	14.38
1970	9.64	1.66	11.30	1.32	2.10	3.42	-0.10	0.35	14.97	0.26	0.01	14.70	14.97
1971	9.46	1.69	11.16	1.68	2.25	3.93	-0.07	0.44	15.45	0.22	0.01	15.21	15.45
1972	9.44	1.74	11.18	2.22	2.53	4.74	0.23	0.44	16.60	0.22	0.01	16.37	16.60
1973	9.21	1.74	10.95	3.24	3.01	6.26	-0.14	0.49	17.55	0.23	0.01	17.31	17.55
1974	8.77	1.69	10.46	3.48	2.64	6.11	-0.18	0.49	16.89	0.22	0.01	16.65	16.89
1975	8.37	1.63	10.01	4.10	1.95	6.06	-0.03	0.51	16.54	0.21	0.01	16.32	16.54
1976	8.13	1.60	9.74	5.29	2.03	7.31	0.06	0.59	17.70	0.22	0.01	17.46	17.70
1977	8.24	1.62	9.86	6.61	2.19	8.81	-0.55	0.57	18.69	0.24	0.02	18.43	18.69
1978	8.71	1.57	10.27	6.36	2.01	8.36	0.09	0.49	19.22	0.36	0.02	18.85	19.22
1979	8.55	1.58	10.14	6.52	1.94	8.46	-0.15	0.56	19.00	0.47	0.02	18.51	19.00
1980	8.60	1.57	10.17	5.26	1.65	6.91	-0.14	0.68	17.61	0.54	0.01	17.06	17.61
1981	8.57	1.61	10.18	4.40	1.60	6.00	-0.16	0.64	16.66	0.59	*	16.06	16.66
1982	8.65	1.55	10.20	3.49	1.63	5.11	0.15	0.65	16.11	0.82	*	15.30	16.11
1983	8.69r	1.56	10.25r	3.33r	1.72r	5.05r	0.02r	0.65r	15.97r	0.74	*	15.23r	15.97r
1984p	8.76	1.63	10.39	3.40	1.98	5.38	-0.28	0.94	16.43	0.72	*	15.71	16.43

r = revised.
p = preliminary.
* Less than 5,000 barrels per day.
Note: Sum of components may not equal total due to independent rounding.
1 Includes lease condensate.
2 Includes imports for the Strategic Petroleum Reserve which began in 1977.
3 Negative numbers denote a net addition to stocks or a reduction in supply. Positive numbers denote a net withdrawal from stocks or an addition to supply.
4 Includes benzol, other hydrocarbons, hydrogen, alcohol, processing gains and unaccounted for crude oil.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 39.

Table 74. Domestic Supply and Disposition for Motor Gasoline, 1965-1984 (daily averages in thousands of barrels)

Year	Supply			Stocks as of Dec. 31 (barrels x 10^3)	Change in Stocks	Disposition		
	Total Production	Imports	Total Supply			Total Product Supplied	Exports	Total Disposition
1965	4,537	27	4,564	174,717	-30	4,593	1	4,594
1966	4,798	43	4,841	186,393	31	4,808	2	4,810
1967	4,956	42	4,998	200,055	37	4,958	3	4,961
1968	5,215	59	5,274	204,496	13	5,260	1	5,261
1969	5,484	62	5,546	211,199	18	5,526	2	5,528
1970	5,714	67	5,781	209,255	-5	5,785	1	5,786
1971	5,984	59	6,043	219,352	28	6,014	1	6,015
1972	6,292	68	6,360	212,894	-18	6,377	1	6,378
1973	6,535	134	6,669	209,478	-9	6,674 r	4	6,678
1974	6,360	204	6,564	218,410 1	24	6,537 r	2	6,539
1975	6,520	184	6,704	234,978	28	6,675	2	6,677
1976	6,841	131	6,972	231,432	10	6,978	3	6,981
1977	7,033	217	7,250	257,623	72	7,177	2	7,179
1978	7,169	190	7,359	237,979	-54	7,412	1	7,413
1979	6,852	181	7,033	237,200	-2	7,034	*	7,034
1980	6,506	140	6,646	261,398	66	6,579	1	6,580
1981	6,405	157 r	6,562 r	203,062	28	6,588	2	6,590
1982	6,338 r	197 r	6,535 r	194,436	24	6,539 r	20	6,559 r
1983	6,340 r	247 r	6,587 r	185,498	47	6,622 r	10	6,632 r
1984	6,467	292	6,759	205,391	-54	6,698	6	6,704

r = revised
* = Less than 500 barrels per day.
1 U.S. Bureau of Mines altered its stock reporting base as of January 1975. On the new basis, year-end, 1974 stocks were 224,719 thousand barrels. This figure was used to compute the 1975 stock change.

Source: 1965-1972: American Petroleum Institute, *Basic Petroleum Data Book*, Section VII, Table 5.
1973-1983: U.S. DOE, *Monthly Energy Review*, March 1985, p. 49.
Stocks Only:
1973-1982: *Ibid.*, *Petroleum Supply, Monthly*, December issues 1977 - 1982, Tables 2, 2a, 3a and 3 5 (converted to daily averages using column 6).
1983-1984: *Ibid.*, December issues, pp. 25, 27.

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Table 75. Domestic Demand for Gasoline
(at 5 year Intervals 1955-1970 and Annually 1971-1983)
(thousands of gallons)

Year	Total Demand	Highway	NonHighway				
			Agriculture	Aviation	Marine	Other[1]	Total
1955	52,566,255	47,731,734	2,156,434	999,440	25,885	1,652,762	4,834,521
1960	63,221,243	57,879,908	2,291,666	1,323,769	60,633	1,656,267	5,332,335
1965	75,312,613	71,104,430	1,963,432	501,339	96,336	1,647,076	4,208,183
1970	96,331,909	92,329,056	1,931,966	393,012	598,159	1,079,713	4,002,850
1971	101,471,956	97,558,586	1,864,708	359,549	645,428	1,043,865	3,913,370
1972	108,886,206	105,062,178	1,698,185	355,178	686,763	1,083,902	3,824,028
1973	114,368,632	110,472,881	1,749,776	395,018	716,990	1,033,967	3,895,751
1974	109,923,280	106,300,765	1,605,809	394,806	696,906	924,994	3,622,515
1975	112,626,656	108,984,347	1,564,882	409,713	729,718	937,996	3,642,309
1976	119,478,018	115,700,146	1,472,272	529,238	763,803	1,012,559	3,777,872
1977	123,350,479	119,625,280	1,360,220	552,615	774,066	1,038,298	3,725,199
1978	115,816,431	112,239,066	1,228,772	457,372	811,850	1,079,371	3,577,365
1979	111,771,026	108,125,994	1,152,097	502,977	780,171	1,209,787	3,645,032
1980	104,837,657	101,183,014	1,059,044	412,883	1,052,185	1,130,531	3,654,643
1981	103,111,410	99,596,671	962,149	376,708	1,092,982	1,082,900	3,514,739
1982	101,738,767	98,478,881	912,062	372,637	1,061,931	913,256	3,259,886
1983	103,180,290	99,964,516	735,919	407,110	1,069,072	1,003,673	3,215,774

[1] Other includes state, county, and municipal use, industrial, commercial, construction, miscellaneous and unclassified users.

Source: 1955-1975: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Tables MF-24 and MF-26.
1976: *Ibid.*, 1976, Table MF-21; Table MF-24, unpublished.
1977-1983: *Ibid.*, annual issues, Tables MF-21A and MF-24.

Table 76. Domestic Supply and Demand for Naphtha Type Jet Fuel, 1965-1984 (daily averages in thousands of barrels)

Year	Supply			Stocks as of Dec. 31 (barrels x 10^3)	Demand			
	Production	Imports	New Supply		Change in Stocks	Total Demand	Exports	Domestic Demand
1965	226	44	270	8,338	*	270	2	268
1966	245	35	280	7,235	-3	283	4	279
1967	300	15	315	9,037	5	310	5	305
1968	332	19	351	8,904	*	351	5	346
1969	287	14	301	8,556	-1	302	5	297
1970	230	20	250	6,621	5	255	6	249
1971	234	30	264	6,990	1	263	3	260
1972	209	33	242	6,147	-2	244	2	242
1973	181	36	217	5,599	-2	219	2	217
1974	195	27	222	5,529	*	222	*	222
1975	180	28	208	5,222	-1	209	*	209
1976	187	15	202	6,495	3	199	*	199
1977	186	21	207	6,285	-1	208	*	208
1978	182	19	201	5,960	-1	202	*	202
1979	176	22	198	5,599	-2	200	*	200
1980	188	31	219	6,308	2	217	*	217
1981	193	7	200	6,925	-1	199	1	198
1982	200	5	205	5,673	4	208	1	207
1983	203	0	203	6,213	3	205	1	204
1984	212	12	224	6,861	-2	223	3	220

* Less than 1,000 barrels.

Source: 1965-1975: American Petroleum Institute, *Basic Petroleum Data Book*, Section VII, Table 14.
1976-1980: U.S. DOE, *Petroleum Statement, Monthly*, December issues 1977-1980, Table 2 (converted to daily averages using column 6).
1981-1982: *Ibid.*, December 1981, Tables 2a and 3a; December 1982, Tables 3 and 5.
1983-1984: *Ibid.*, December issues, pp. 25, 27.

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Table 77. Domestic Supply and Demand for Kerosene Type Jet Fuel, 1965-1984 (daily averages in thousands of barrels)

Year	Supply			Stocks as of Dec. 31 (barrels x 10^3)	Demand			
	Production	Imports	New Supply		Change in Stocks	Total Demand	Exports	Domestic Demand
1965	298	37	335	10,361	*	335	1	334
1966	345	52	397	13,139	5	392	1	391
1967	448	74	522	13,174	3	519	1	518
1968	529	86	615	15,373	6	609	*	609
1969	594	111	705	19,517	11	694	*	694
1970	597	125	722	20,989	4	718	*	718
1971	601	150	751	20,747	1	752	1	751
1972	638	162	800	19,346	3	803	*	803
1973	679	176	855	22,945	10	845	3	842
1974	641	135	776	23,906	3	773	2	771
1975	691	105	796	25,158	3	793	2	791
1976	731	61	792	25,590	1	791	2	789
1977	787	53	840	28,263	7	833	2	831
1978	791	67	858	27,707	2	859	1	858
1979	835	56	891	32,921	14	877	1	876
1980	811	50	861	35,723	8	853	1	852
1981	775	31	806	34,011	-5	810	1	809
1982	777	22	799	31,176	8	801	5	796
1983	817	26	843	32,368	-1	837	5	832
1984	919	44	963	35,118	-8	956	7	949

* Less than 1,000 barrels.

Source: 1965-1975: American Petroleum Institute, *Basic Petroleum Data Book*, Section VII, Table 15.
1976-1980: U.S. DOE, *Petroleum Statement, Monthly*, December issues 1977-1980, Table 2 (converted to daily averages using column 6).
1981-1982: *Ibid.*, December 1981, Tables 2a and 3a; December 1982, Tables 3 and 5.
1983-1984: *Ibid.*, December issues, pp. 25, 27.

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Table 78. Domestic Demand for Naphtha and Kerosene-Type Jet Fuel, 1965-1984 (thousand barrels)

Year	Naphtha Type Total	Barrels Per Day	Kerosene Type Total	Barrels Per Day	Naphtha and Kerosene	Barrels Per Day	Annual Percentage Change
1965	97,813	268	121,819	334	219,632	602	-0.2
1966	101,635	278	142,751	391	244,386	670	11.3
1967	111,546	306	189,224	518	300,770	824	23.1
1968	126,601	346	222,777	609	349,378	955	16.2
1969	108,518	297	253,213	694	361,731	991	3.5
1970	90,927	249	262,051	718	352,978	967	-2.4
1971	94,732	260	273,991	751	368,723	1,010	4.5
1972	88,495	242	293,995	803	382,490	1,045	3.7
1973	79,220	217	307,407	842	386,627	1,059	1.1
1974	81,171	222	281,429	771	362,600	993	-6.2
1975	76,543	210	288,747	791	365,290	1,001	0.7
1976	72,713	199	288,645	789	361,358	987	-1.1
1977	75,888	208	303,369	831	379,257	1,039	5.0
1978	72,546	202	313,108	858	385,654	1,060	1.7
1979	72,925	200	319,774	876	392,699	1,076	1.8
1980	79,283	217	311,813	852	391,096	1,069	-0.4
1981	72,495	199	295,626	809	368,121	1,008	-5.9
1982	75,754	208	292,529	801	368,283	1,009	0.4
1983	74,761	204	303,453	832	378,214	1,036	2.7
1984	80,684	221	347,486	952	428,170	1,173	13.21

Source: 1965-1975: U.S. DOI, Bureau of Mines, *Mineral Industry Surveys, Petroleum Statement, Annual*, Table 1.
1976-1982: U.S. DOE, *Petroleum Statement, Monthly*, December issues, Table 2A.
1983-1984: *Ibid.*, December issues, p. 25.

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Table 79. Dry Natural Gas Supply and Disposition*
(At 5-Year Intervals 1955-1965 and Annually 1966-1984)
(trillion cubic feet)

	Supply					Disposition				
Year	Dry Natural Gas Production	Withdrawals From Storage[1]	Supplemental Gaseous Fuels	Imports	Total Supply	Additions To Storage[1]	Exports	Unaccounted For[2]	Consumption	Total Disposition
1955	9.03	0.44	n/a	0.01	9.48	0.51	0.03	0.25	8.69	9.48
1960	12.23	0.71	n/a	0.16	13.10	0.84	0.01	0.27	11.97	13.10
1965[3]	15.29	0.96	n/a	0.46	16.70	1.08	0.03	0.32	15.28	16.70
1966	16.47	1.14	n/a	0.48	18.09	1.21	0.02	0.40	16.45	18.09
1967	17.39	1.13	n/a	0.56	19.08	1.32	0.08	0.30	17.39	19.08
1968	18.49	1.33	n/a	0.65	20.48	1.43	0.09	0.33	18.63	20.48
1969	19.83	1.38	n/a	0.73	21.94	1.50	0.05	0.33	20.06	21.94
1970	21.01	1.46	n/a	0.82	23.29	1.86	0.07	0.23	21.14	23.29
1971	21.61	1.51	n/a	0.93	24.05	1.84	0.08	0.34	21.79	24.05
1972	21.62	1.76	n/a	1.02	24.40	1.89	0.08	0.33	22.10	24.40
1973	21.73	1.53	n/a	1.03	24.30	1.97	0.08	0.20	22.05	24.30
1974	20.71	1.70	n/a	0.96	23.37	1.78	0.08	0.29	21.22	23.37
1975	19.24	1.76	n/a	0.95	21.95	2.10	0.07	0.24	19.54	21.95
1976	19.10	1.92	n/a	0.96	21.98	1.76	0.06	0.22	19.95	21.98
1977	19.16	1.75	n/a	1.01	21.92	2.31	0.06	0.04	19.52	21.92
1978	19.12	2.16	n/a	0.97	22.25	2.28	0.05	0.29	19.63	22.25
1979	19.66	2.05	n/a	1.25	22.96	2.30	0.06	0.37	20.24	22.96
1980	19.40	1.97	0.15	0.98	22.51	1.95	0.05	0.64	19.88	22.51
1981	19.18	1.93	0.18	0.90	22.19	2.23	0.06	0.50	19.40	22.19
1982	17.76	2.16	0.14	0.93	21.00	2.47	0.05	0.47	18.00	21.00
1983	16.03[r]	2.27[r]	0.13[r]	0.92[r]	19.35[r]	1.82[r]	0.05[r]	0.64[r]	16.83[r]	19.35[r]
1984[p]	17.22	2.04	0.14	0.86	20.25	2.25	0.06	0.46	17.48	20.25

n/a = not available.
r = revised.
p = preliminary.
* Includes supplemental gaseous fuels.
1 Beginning with 1980, includes liquefied natural gas (LNG) storage in above ground tanks.
2 Unaccounted for gas is the imbalance between available supplies for consumption and actual consumption.
3 Beginning with 1965 data, all volumes are shown on pressure base of 14.73 p.s.i.a. at 60°F. For prior years, the pressure base is 14.65 p.s.i.a. at 60°F.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 60.

Table 80. Natural Gas Production, 1955-1984
(trillion cubic feet)

Year	Gross Withdrawls: From Gas Wells	Gross Withdrawls: From Oil Wells	Gross Withdrawls: Total	Reservoir Repressuring	Non-hydrocarbon Gases Removed	Vented and Flared	Marketed Production	Extraction Loss[1]	Dry Natural Gas Production
1955	7.84	3.88	11.72	1.54	n/a	0.77	9.41	0.38	9.03
1960	10.85	4.23	15.09	1.75	n/a	0.56	12.77	0.54	12.23
1965[2]	13.52	4.44	17.96	1.60	n/a	0.32	16.04	0.75	15.29
1966	13.89	5.14	19.03	1.45	n/a	0.38	17.21	0.74	16.47
1967	15.35	4.91	20.25	1.59	n/a	0.49	18.17	0.78	17.39
1968	16.54	4.79	21.32	1.49	n/a	0.52	19.32	0.83	18.49
1969	17.49	5.19	22.68	1.46	n/a	0.53	20.70	0.87	19.83
1970	18.59	5.19	23.79	1.38	n/a	0.49	21.92	0.91	21.01
1971	18.93	5.16	24.09	1.31	n/a	0.28	22.49	0.88	21.61
1972	19.04	4.97	24.02	1.24	n/a	0.25	22.53	0.91	21.62
1973	19.37	4.70	24.07	1.17	n/a	0.25	22.65	0.92	21.73
1974	18.67	4.18	22.85	1.08	n/a	0.17	21.60	0.89	20.71
1975	17.38	3.72	21.10	0.86	n/a	0.13	20.11	0.87	19.24
1976	17.19	3.75	20.94	0.86	n/a	0.13	19.95	0.85	19.10
1977	17.42	3.68	21.10	0.93	n/a	0.14	20.03	0.86	19.16
1978	17.39	3.91	21.31	1.18	n/a	0.15	19.97	0.85	19.12
1979	18.03	3.85	21.88	1.25	n/a	0.17	20.47	0.81	19.66
1980	17.57	4.30	21.87	1.37	0.20	0.13	20.18	0.78	19.40
1981	17.34	4.25	21.59	1.31	0.22	0.10	19.96	0.77	19.18
1982	15.80	4.41	20.21	1.39	0.21	0.09	18.52	0.76	17.76
1983	14.15[r]	4.45[r]	18.60[r]	1.46[r]	0.22	0.09[r]	16.82[r]	0.79[r]	16.03[r]
1984[p]	15.36	4.50	19.86	1.48	0.23	0.09	18.07	0.85	17.22

n/a = not available.
r = revised.
p = preliminary.
[1] Volume reduction resulting from the removal of natural gas plant liquids. Natural gas plant liquids are transferred to petroleum supply.
[2] Beginning with 1965 data, all volumes are on a pressure base of 14.73 p.s.i.a at 60°F. For prior years, the pressure base is 14.65 p.s.i.a. at 60°F.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 59.

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Table 81. Coal Supply and Disposition, 1955-1984
(million short tons)

Year	Supply				Disposition			
	Production	Imports	Change In Stocks, Losses and Unaccounted For[1]	Total	Exports	Anthracite Shipped Overseas to U.S. Armed Forces	Consumption	Total
1955	490.8	0.3	10.3	501.4	54.4	0	447.0	501.4
1960	434.3	0.3	1.5	436.1	38.0	0	398.1	436.1
1965	527.0	0.2	-3.0	524.1	51.0	1.13	472.0	524.1
1966	546.8	0.2	1.6	548.6	50.1	0.77	497.7	548.6
1967	564.9	0.2	-22.7	542.4	50.1	0.83	491.4	542.4
1968	556.7	0.2	4.9	561.8	51.2	0.82	509.8	561.8
1969	571.0	0.1	3.2	574.3	56.9	1.04	516.4	574.3
1970	612.7	*	-17.0	595.6	71.7	0.69	523.2	595.6
1971	560.9	0.1	-1.4	559.6	57.3	0.72	501.6	559.6
1972	602.5	*	21.1	581.5	56.7	0.45	524.3	581.5
1973	598.6	0.1	17.9	616.6	53.6	0.44	562.6	616.6
1974	610.0	2.1	7.4	619.5	60.7	0.43	558.4	619.5
1975	654.6	0.9	-26.2	629.4	66.3	0.46	562.6	629.4
1976	684.9	1.2	-21.7	664.4	60.0	0.57	603.8	664.4
1977	697.2	1.6	-18.8	680.0	54.3	0.40	625.3	680.0
1978	670.2	3.0	-6.9	666.2	40.7	0.28	625.2	666.2
1979	781.1	2.1	-36.3	746.9	66.0	0.37	680.5	746.9
1980	829.7	1.2	-36.1	794.8	91.7	0.34	702.7	794.8
1981	823.8	1.0	20.7	845.5	112.5	0.37	732.6	845.5
1982	838.1	0.7	-25.3	813.5	106.3	0.35	706.9	813.5
1983	782.1[r]	1.3	31.4[r]	814.8[r]	77.8	0.34[r]	736.7[r]	814.8[r]
1984[p]	890.1	1.2	-16.9	874.5	81.5	0.30	792.7	874.5

r = revised.
p = preliminary.
* Less than 0.05 million short tons.
[1] Net additions to stocks are considered as negative numbers. Net withdrawals from stocks are considered as positive numbers.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 65.

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Table 82. Deliveries of Residual Fuel Oil by Use (at 5-Year Intervals 1955-1970 and Annually 1971-1983) (thousands of barrels)

Year	Vessel Bunkering	Gas and Electrical Public-Utility Plants*	Railroads	Oil Company Use	Industrial Use (Except Oil Co's.)	Heating Oils	Military Use[3]	Misc. Uses	Total
1955	115,128	75,966	15,018	53,387	173,030	86,282	28,368	9,804	556,983
1960[1]	94,084	85,408	5,610	45,061	157,270	125,088	31,724	6,291	550,536
1965	73,639	114,884	4,001	34,354	140,602	156,254	40,380	10,004	574,118
1970	89,850	312,420	2,222	38,318	139,647	185,831	28,704	7,295	804,287
1971	78,727	371,820	1,262	32,626	136,221	182,062	29,217	6,109	838,044
1972	77,932	435,348	1,137	44,291	142,320	191,111	24,622	8,886	925,647
1973	92,415	509,457	1,214	50,652	152,267	192,252	22,892	9,028	1,030,177
1974	91,052	475,204	1,176	50,236	143,726	172,896	20,423	8,503	963,216
1975	96,673	454,935	583	50,487	116,657	154,103	19,068	6,066	898,572
1976	117,458	492,974	423	58,212	153,596	178,139	18,561	5,785	1,025,148
1977	128,966	569,429	329	60,582	171,967	168,279	16,646	4,729	1,120,927
1978	157,495	533,193	206	57,690	169,403	164,536	16,583	4,127	1,103,233
1979	190,543	486,636	245	51,062	198,759	82,729[2]	7,736	16,900	1,034,610
1980	213,131	390,105	665	59,519	163,564	98,034[2]	8,066	4,382	937,466
1981	188,632	325,486	178	51,870	117,024	67,035[2]	7,008	4,795	762,030
1982	152,586[r]	227,419	170	45,319	122,619	65,781[2]	7,829	4,784	626,510[r]
1983	136,290	204,238	140	32,820	89,573	46,743[2]	5,411	3,389	518,604

[r] = revised.

* Beginning with 1967, represents use by electric public-utility plants only.

1 Includes Alaska and Hawaii.

2 Beginning in 1979, heating oils has been reclassified commerical and is a part of the total called "heating and industrial."

3 Includes imports by military.

Source: 1955-1983: American Petroleum Institute, *Basic Petroleum Data Book*, 1984, Section VII, Tables 12 and 12a.

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Table 83. Deliveries of Distillate Fuel Oil by Use (at 5-Year Intervals 1955-1970 and Annually 1971-1983) (thousands of barrels)

Year	Heating Oils	Industrial Use	Oil Company Fuel	Electric Utility	Railroads	Vessel Bunkering	Military Use[4]	Diesel Type			All Other	Total
								On Highway	Off Highway	Total		
1955	356,583	43,606	8,597	5,884	84,668	16,675	10,945	23,446	20,769	44,215	9,948	581,127
1960[1]	438,010	34,271	8,347	4,742	86,490	18,730	10,793	36,467	38,095	74,562	7,380	633,325
1965	475,992	42,484	10,430	3,661	86,436	15,532	14,953	73,776	50,346	124,122	13,281	786,891
1970	521,135	43,668	11,518	24,770[2]	88,416	19,503	12,447	148,796	46,123	194,919	10,874	927,250
1971	522,475	50,731	14,088	35,329	86,251	20,959	17,427	166,981	46,925	213,906	10,154	971,320
1972	543,337	60,388	13,405	68,334	97,001	22,125	20,187	189,055	50,186	239,241	10,852	1,074,870
1973	536,856	67,306	14,902	77,950	102,828	26,786	19,598	221,420	55,541	276,961	11,876	1,135,063
1974	493,223	64,036	13,805	84,661	102,949	24,757	17,748	221,033	48,743	269,776	10,131	1,081,086
1975	488,388	63,993[5]	13,633	63,420	92,191[r]	26,138	18,004	217,906	48,977	266,883	10,096	1,043,746
1976	543,895[r]	79,956[5]	14,523	60,570	97,467	28,330	17,574	242,820	54,429	297,249	11,365	1,150,929
1977	538,845	96,502[5]	19,954	76,681	99,306	33,512	20,121	264,412	66,452	330,864	14,394	1,230,179
1978	533,069	94,797[5]	19,410	77,175	99,841	37,591	20,320	290,943	69,856	360,799	14,059	1,257,061
1979	454,955[3]	99,583[5]	22,043	46,579	103,493	41,725	18,570	327,402	65,212	392,614	34,812	1,214,374
1980	393,122[3]	86,089[5]	24,205	31,812	102,022	35,201	19,138	323,431	51,705	375,136	19,994	1,086,709
1981	345,728[3]	80,216[5]	29,165	18,192	100,482	41,025	17,763	340,002	38,851	378,853	21,032	1,032,476
1982	324,912[3]	71,340[5]	29,482	12,134	93,150	33,885	15,201	338,006	37,118	375,124	19,639	974,864
1983	311,289[3]	69,332[5]	29,957	11,744	91,681	33,785	15,925	362,276	36,737	399,013	19,201	981,927

r = revised.

1 Includes Alaska and Hawaii.

2 Includes gas turbine plants in 1970 and subsequent years.

3 Beginning in 1979, heating oils is no longer a separate category. The figure is derived by adding residential, commercial and farming.

4 Includes imports by military.

5 Excludes oil company use.

Source: 1955-1983: American Petroleum Institute, *Basic Petroleum Data Book*, 1984, Section VII, Table 10, 10a.
1983: Diesel Type, On Highway/Off Highway - U.S. DOE, *Petroleum Supply Annual*, 1983.

Table 84. Refined Petroleum Products Supplied by Type and to End-Use Sectors, 1983-1984

Year and Refined Product	Residential and Commerical		Industrial		Transportation		Electric Utilities		Total	
	Million Barrels Per Day	Quadrillion Btu	Million Barrels Per Day	Quadrillion Btu	Million Barrels Per Day	Quadrillion Btu	Million Barrels Per Day	Quadrillion Btu	Million Barrels Per Day	Quadrillion Btu
1983[r]										
Asphalt and Road Oil	0	0	0.37	0.90	0	0	0	0	0.37	0.90
Aviation Gasoline	0	0	0	0	0.03	0.05	0	0	0.03	0.05
Distillate Fuel Oil	0.67	1.42	0.61	1.29	1.37	2.92	0.05	0.10	2.69	5.72
Jet Fuel	0	0	0	0	1.05	2.14	0	0	1.05	2.14
Kerosene	0.06	0.12	0.07	0.15	0	0	0	0	0.13	0.26
Liquefied Gases and Ethane	0.31	0.41	1.17	1.54	0.03	0.04	0	0	1.51	1.99
Lubricants	0	0	0.08	0.17	0.07	0.16	0	0	0.15	0.32
Motor Gasoline	0.05	0.10	0.06	0.11	6.51	12.48	0	0	6.62	12.70
Residual Fuel Oil	0.12	0.27	0.32	1.73	0.36	0.82	0.63	1.44	1.42	3.26
All Other[1]	0	0	1.27	2.70	0	0	*	0.01	1.27	2.71
Total	1.21	2.32	3.93	7.58	9.41	18.61	0.68	1.54	15.23	30.05
1984[p]										
Asphalt and Road Oil	0	0	0.40	0.98	0	0	0	0	0.40	0.98
Aviation Gasoline	0	0	0	0	0.03	0.05	0	0	0.03	0.05
Distillate Fuel Oil	0.71	1.51	0.64	1.36	1.46	3.11	0.04	0.09	2.85	6.07
Jet Fuel	0	0	0	0	1.17	2.40	0	0	1.17	2.40
Kerosene	0.05	0.11	0.06	0.13	0	0	0	0	0.12	0.24
Liquefied Gases and Ethane	0.33	0.43	1.22	1.60	0.03	0.04	0	0	1.58	2.08
Lubricants	0	0	0.08	0.17	0.07	0.17	0	0	0.15	0.34
Motor Gasoline	0.05	0.10	0.06	0.11	6.58	12.66	0	0	6.70	12.88
Residual Fuel Oil	0.13	0.29	0.34	0.78	0.38	0.88	0.52	1.19	1.36	3.14
All Other[1]	0	0	1.35	2.82	0	0	*	0.01	1.35	2.83
Total	1.27	2.44	4.15	7.97	9.72	19.30	0.56	1.29	15.71	31.00

r = revised.
p = preliminary.
* Less than 5,000 barrels per day.
1 Includes petrochemical feedstock, special naphthas, waxes, petroleum coke, still gas, natural gasoline, crude oil and miscellaneous products.
Note: Sum of components may not equal total due to independent rounding.
Source: U.S. DOE/EIA, *Annual Energy Review 1984*, Table 51.

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Table 85. Imports and Exports, Crude Oil and Products, 1983

	Million Tonnes (metric tons)[1]				Thousand Barrels Daily			
	Imports		Exports		Imports		Exports	
Country/Area	Crude	Products	Crude	Products	Crude	Products	Crude	Products
U.S.A.	164.3	81.4	8.1	31.6	3,305	1,685	165	575
Canada	12.9	3.2	13.5	13.3	260	60	270	275
Latin America	82.3	15.1	131.5	68.8	1,655	300	2,650	1,415
Western Europe	342.2	87.8	22.7	18.9	6,890	1,775	465	395
Middle East	4.1	5.7	473.3	39.6	80	115	9,535	820
North Africa	2.4	4.6	92.1	16.1	50	95	1,845	335
West Africa	n/a	3.6	68.1	2.5	n/a	75	1,370	55
East and South Africa	20.6	2.8	n/a	0.1	4.5	55	n/a	5
South Asia	19.1	5.6	1.4	1.3	380	115	35	30
South East Asia	79.8	19.3	54.1	16.2	1,605	390	1,070	330
Japan	177.7	28.0	n/a	0.3	3,580	565	n/a	10
Australia	6.5	5.0	0.1	2.0	130	115	5	45
U.S.S.R., E. Europe & China	14.3	6.2	71.0	59.5	290	135	1,425	1,230
Destination not known*	9.7	1.9	n/a	n/a	195	40	n/a	n/a
Total	935.9	270.2	935.9	270.2	18,835	5,520	18,835	5,520

n/a = not available.

* Includes changes in the quantity of oil in transit, transit losses, minor movements not otherwise shown, unidentified military use, etc.

1 One metric ton (tonne) equals 1.102 short tons.

Source: British Petroleum Company, *BP Statistical Review of World Energy*, 1983, p.16.

APPENDIX A
Source Information

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Figure References (Figure 2-Figure 8)

Figure 2. Expenditures and Revenues, 1983

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Rail, Air, Water, Pipeline, and Local Transit.
3. International: Sum of Air and Water.
4. Highway: Sum of Auto, Truck, and Bus.
5. Auto: Sum of Personal Passenger Car, Taxi and Motorcycle.
6. Personal Passenger Car: U.S. Department of Commerce (DOC), Bureau of Economic Analysis, *Survey of Current Business*, 1984, Table 2.4, line 64.
7. Taxi: *Ibid.*, line 75.
8. Motorcycle: Motorcycle Industry Council, Inc., *1984 Motorcycle Statistical Annual*, p. 11. Due to changes in reporting methods, this figure is not directly comparable to previous years.
9. Truck: Sum of Local Truck and Intercity Truck.
10. Local Truck: Transportation Policy Associates (TPA), *Transportation In America*, 1985, p. 4.
11. Intercity Truck: Sum of ICC-regulated Truck and Nonregulated Truck.
12. ICC-Regulated Truck: TPA, *Transportation In America*, 1985, p. 4. Revenues of the Class I, II, III motor carriers of property. Revenues include local cartage under the assumption that the majority of such revenues constitute pickup and delivery of intercity freight.
13. Nonregulated Truck: *Ibid.*
14. Bus: Sum of Intercity Bus and School Bus.
15. Intercity Bus: American Bus Association (ABA), personal communication. Operating revenues of Class I, II, III carriers reporting to the ICC, plus intrastate carriers. Includes passenger, express, mail, station, and other revenues.
16. Passenger, Intercity Bus: *Ibid.*, total passenger revenues of Class I carriers plus 25 percent of this amount as estimated passenger revenues for Class II and Class III and intrastate carriers.
17. Cargo, Intercity Bus: *Ibid.*, personal communication. Total package express and mail revenues for Class I carriers plus 25 percent of this amount as estimated cargo revenues for Class II and III and intrastate carriers.
18. School Bus: TPA, *Transportation In America*, 1985, p. 5.
19. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.01.2.
20. Motorbus: *Ibid.*, Table 2.01.1.
21. Rail: Sum of Passenger and Cargo, includes Amtrak.
22. Rail, Passenger: Sum of Class I Rail and Amtrak.
23. Rail, Class I: Association of American Railroads (AAR), *Railroad Ten-Year Trends*, 1984, Table II-A-1.
24. Rail, Amtrak: *Ibid.*, *Railroad Facts*, 1984, p. 61.
25. Rail, Cargo: *Ibid.*, p. 10.
26. Air: Sum of General Aviation and Air Carrier.
27. General Aviation: TPA, *Transportation In America*, 1985, p. 5. Figure represents the sum of operating costs and total retail value of new general aviation aircraft.
28. Air Carrier: Same as Total Certificated figure, block (45).
29. Total Certificated: Civil Aeronautics Board (CAB), *Air Carrier Financial Statistics*, 1983, p. 1, total operating revenues, domestic operations.
30. Total Domestic Majors: *Ibid.*, p. 3, total operating revenues in scheduled and nonscheduled services.
31. Passenger: *Ibid.*, p. 3, sum of passenger revenues in scheduled and nonscheduled service.
32. Freight: *Ibid.*, p. 3, sum of scheduled and nonscheduled freight revenues.
33. Total Domestic Nationals: *Ibid.*, p. 27, total operating revenues in scheduled and nonscheduled services.
34. Passenger: *Ibid.*, p. 27, sum of scheduled and nonscheduled passenger service.
35. Freight: *Ibid.*, p. 27, sum of scheduled and nonscheduled freight service.
36. Total Domestic Large Regionals: *Ibid.*, p. 46, total operating revenues in scheduled and non-scheduled service.

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Figure 2. Expenditures and Revenues, 1983 (cont'd)

37. Passenger: *Ibid.*, p. 46, sum of scheduled and nonscheduled passenger service.
38. Freight: *Ibid.*, p. 46, sum of scheduled and nonscheduled freight services.
39. Water: Sum of Passenger, Cargo, and Commercial Fishing.
40. Passenger, Water: TPA, *Transportation In America*, 1985, p. 5. Figure represents revenues of ICC-regulated carriers. Expenditures for private boating are not available.
41. Cargo, Water: *Ibid.*, p. 4, domestic operations only.
42. Commercial Fishing: U.S. DOC, *Statistical Abstract of the U.S.*, 1985, p. 685.
43. Pipeline: TPA, *Transportation In America*, 1985, p. 4, includes revenues of regulated and unregulated oil pipelines.
44. Air Carrier: Figure represents overall operating revenues of the certificated carriers, total international operations. Same as Total Certificated figure, block (48).
45. Total Certificated: CAB, *Air Carrier Financial Statistics*, 1983, p. 2, total operating revenues, international operations only.
46. Total International Majors: *Ibid.*, p. 4, total operating revenues in scheduled and nonscheduled service.
47. Passenger: *Ibid.*, p. 4, sum of scheduled and nonscheduled passenger service.
48. Freight: *Ibid.*, p. 4, sum of scheduled and nonscheduled freight service.
49. Total International Nationals: *Ibid.*, p. 28, total operating revenues in scheduled and nonscheduled service.
50. Passenger: *Ibid.*, p. 28, sum of scheduled and nonscheduled passenger service.
51. Freight: *Ibid.*, p. 28, sum of scheduled and nonscheduled freight service.
52. Water: Sum of Passenger and Cargo.
53. Passenger, Water: TPA, *Transportation In America*, 1985, p. 5.
54. Cargo, Water: *Ibid.*, p. 4.

Figure 3. Vehicle-Miles, 1983

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Local Transit, Rail, and Air; Water data not available.
3. International: Includes Total Certificated; Water data not available.
4. Highway: Sum of Auto, Truck, and Bus.
5. Auto: Sum of Personal Passenger Car and Motorcycle.
6. Personal Passenger Car: U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), *Highway Statistics*, 1983, Table VM-1. Includes total rural and urban. This figure includes Taxi.
7. Taxi: Data for Taxi are included in the Personal Passenger Car category.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, includes total rural and urban.
9. Truck: *Ibid.*
10. Single-Unit: *Ibid.*
11. Combinations: *Ibid.*
12. Bus: Sum of Intercity Bus and School Bus.
13. Intercity Bus: ABA, personal communication. Includes Class I, II, and III carriers reporting to the ICC and Intrastate carriers. Preliminary figure.
14. Class I: *Ibid.*, total vehicle-miles operated.
15. Regular-route: *Ibid.*, regular-route intercity service.
16. Local and Suburban: *Ibid.*, local and suburban service.
17. Charter and Special: *Ibid.*, charter and special service.
18. Non-Passenger: *Ibid.*, non-passenger service.
19. Class II and III: Figure derived by subtracting Class I from Intercity Bus.
20. School Bus: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1. Includes total rural and urban

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Figure 3. Vehicle-Miles, 1983 (cont'd)

21. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.13, total revenue vehicle miles for all modes.
22. Motorbus: *Ibid.*
23. Trolley Bus: *Ibid.*
24. Rail Rapid/Streetcar: *Ibid.*
25. Demand Response: *Ibid.*
26. Ferryboat: *Ibid.*
27. Commuter Rail: *Ibid.*
28. Rail: Sum of Passenger and Freight.
29. Passenger, Rail: Transportation Policy Associates.
30. Freight, Rail: *Railroad Ten-Year Trends*, 1984, Table III-E-3.
31. Air: Includes total certificated, General Aviation not available.
32. General Aviation: Not available.
33. Total Domestic Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p. 2, sum of scheduled aircraft revenue miles, line 27, and nonscheduled aircraft revenue miles, line 50.
34. Total Domestic Majors: *Ibid.*, p. 5, sum of scheduled, line 27, and nonscheduled, line 50, services.
35. Scheduled: *Ibid.*, p. 5, line 27.
36. Passenger: *Ibid.*, p. 5, line 25.
37. Freight: *Ibid.*, p. 5, line 26.
38. Nonscheduled: *Ibid.*, p. 5, line 50.
39. Total Domestic Nationals: *Ibid.*, p. 47, sum of scheduled, line 27, and nonscheduled, line 50, services.
40. Scheduled: *Ibid.*, p. 47, line 27.
41. Passenger: *Ibid.*, p. 47, line 25.
42. Freight: *Ibid.*, p. 47, line 26.
43. Nonscheduled: *Ibid.*, p. 47, line 50.
44. Total Domestic Large Regionals: *Ibid.*, p. 83, sum of scheduled, line 27, and nonscheduled, line 50, services.
45. Scheduled: *Ibid.*, p. 83, line 27.
46. Passenger: *Ibid.*, p. 83, line 25.
47. Freight: *Ibid.*, p. 83, line 26.
48. Nonscheduled: *Ibid.*, p. 83, line 50.
49. Total Domestic Medium Regionals: *Ibid.*, p. 113, includes domestic and international operations, sum of scheduled, line 27, and nonscheduled, line 50, services.
50. Scheduled: *Ibid.*, p. 113, line 27.
51. Passenger: *Ibid.*, p. 113, line 25.
52. Freight: *Ibid.*, p. 113, line 26.
53. Nonscheduled: *Ibid.*, p. 113, line 50.
54. Water: Not available.
55. International Air: Same as Total International Certificated, block (54).
56. Total International Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p. 3, sum of scheduled aircraft revenue miles, line 27, and nonscheduled aircraft revenue miles, line 50.
57. Total International Majors: *Ibid.*, p. 6, sum of scheduled, line 27, and nonscheduled, line 50, services.
58. Scheduled: *Ibid.*, p. 6, line 27.
59. Passenger: *Ibid.*, p. 6, line 25.
60. Freight: *Ibid.*, p. 6, line 26.
61. Nonscheduled: *Ibid.*, p. 6, line 50.

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Figure 3. Vehicle-Miles, 1983 (cont'd)

62. Total International Nationals: *Ibid.*, p. 48, sum of scheduled, line 27, and nonscheduled, line 50, services.
63. Scheduled: *Ibid.*, p. 48, line 27.
64. Passenger: *Ibid.*, p. 48, line 25.
65. Freight: *Ibid.*, p. 48, line 26.
66. Nonscheduled: *Ibid.*, p. 48, line 50.
67. Total International Large Regionals: *Ibid.*, p. 84, sum of scheduled, line 27, and nonscheduled, line 50, services.
68. Water: Not available.

Figure 4. Passenger-Miles, 1983

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Local Transit, Rail, and Air; Water data not available.
3. International: Includes Air; Water data not available.
4. Highway: Sum of Auto and Bus.
5. Auto: Sum of Personal Passenger Car, Taxi, and Motorcycle.
6. Personal Passenger Car: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1. Passenger miles derived by multiplying total rural and urban passenger car travel by an average occupancy level of 2.2.
7. Taxi: Included in Personal Passenger Car.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1. Passenger miles derived by multiplying total rural and urban motorcycle travel by an average occupancy level of 1.1.
9. Bus: Sum of Intercity Bus and School Bus passenger-miles.
10. Intercity Bus: ABA, personal communication. Revenue passenger-miles, includes Classes I, II, and III carriers reporting to ICC plus Intrastate Carriers.
11. Class I: *Ibid.*
12. Regular-Route: *Ibid.*, personal communication.
13. Class II and III: Figure derived by subtraction of Class I from Intercity.
14. School Bus: Best estimate by NHTSA, National Center for Statistics and Analysis.
15. Local Transit: UMTA, *National Urban Mass Tranportation Statistics, 1983 Section 15 Annual Report*, Table 2.13, total for all modes.
16. Motor Bus: *Ibid.*
17. Rail Rapid/Streetcar: *Ibid.*
18. Trolley Bus: *Ibid.*
19. Demand Response: *Ibid.*
20. Ferryboat: *Ibid.*
21. Commuter Rail: *Ibid.*
22. Rail: TPA, *Transportation In America*, 1985, p. 35.
23. Amtrak: *Ibid.*
24. Commutation: Amtrak, Marketing Department, personal communication.
25. Other Than Commutation: AAR, *Railroad Facts*, 1984, p. 61.
26. Air: Sum of General Aviation and Total Certificated.
27. General Aviation: TPA, *Transportation In America*, 1985, p. 8.
28. Total Domestic Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p. 2, revenue passenger miles, all services, line 1.
29. Total Domestic Majors: *Ibid.*, p. 5, sum of scheduled, line 9, and nonscheduled, line 41, services.
30. Scheduled: *Ibid.*, line 9.
31. First Class: *Ibid.*, line 7.

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Figure 4. Passenger-Miles, 1983 (cont'd)

32. Coach: *Ibid.*, line 8.
33. Nonscheduled: *Ibid.*, line 41.
34. Civilian: *Ibid.*, line 39.
35. Military: *Ibid.*, line 40.
36. Total Domestic Nationals: *Ibid.*, p. 47, sum of scheduled, line 9, and nonscheduled, line 41, services.
37. Scheduled: *Ibid.*, line 9.
38. First Class: *Ibid.*, line 7.
39. Coach: *Ibid.*, line 8.
40. Nonscheduled: *Ibid.*, line 41.
41. Civilian: *Ibid.*, line 39.
42. Military: *Ibid.*, line 40.
43. Total Domestic Large Regionals: *Ibid.*, p. 83, sum of scheduled, line 9, and nonscheduled, line 41, services.
44. Scheduled: *Ibid.*, line 9.
45. First Class: *Ibid.*, line 7.
46. Coach: *Ibid.*, line 8.
47. Nonscheduled: *Ibid.*, line 41.
48. Civilian: *Ibid.*, line 39
49. Military: *Ibid.*, line 40.
50. Total Domestic Medium Regionals: *Ibid.*, p. 113, includes domestic and international operations; sum of scheduled, line 9, and nonscheduled, line 41, services.
51. Scheduled: *Ibid.*, line 9.
52. First Class: *Ibid.*, line 7.
53. Coach: *Ibid.*, line 8.
54. Nonscheduled: *Ibid.*, line 41.
55. Civilian: *Ibid.*, line 39.
56. Military: *Ibid.*, line 40.
57. Water: Not available.
58. International Air: Same as Total International Certificated, block (59).
59. Total International Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p. 3, revenue passenger miles, all services, line 1.
60. Total International Majors: *Ibid.*, p. 6, sum of scheduled, line 9, and nonscheduled, line 41, services.
61. Scheduled: *Ibid.*, line 9.
62. First Class: *Ibid.*, line 7.
63. Coach: *Ibid.*, line 8.
64. Nonscheduled: *Ibid.*, line 41.
65. Civilian: *Ibid.*, line 39.
66. Military: *Ibid.*, line 40.
67. Total International Nationals: *Ibid.*, p. 48, sum of scheduled, line 9, and nonscheduled, line 41, services.
68. Scheduled: *Ibid.*, line 9.
69. First Class: *Ibid.*, line 7.
70. Coach: *Ibid.*, line 8.
71. Nonscheduled: *Ibid.*, line 41.
72. Civilian: *Ibid.*, line 39.
73. Military: *Ibid.*, line 40.

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Figure 4. Passenger-Miles, 1983 (cont'd)

74. Total International Large Regionals: *Ibid.*, p. 84, sum of scheduled, line 9, and nonscheduled, line 41, services.
75. Water: Not Available.

Figure 5. Revenue Ton-Miles of Freight, 1983

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Rail, Air, Water and Pipeline.
3. International: Sum of Air and Water.
4. Highway: Figure represents total intercity ton-miles of motor vehicle transport.
5. Truck: Sum of local and intercity ton-miles.
6. Local Truck: Sum of Single-Unit and Combination Trucks.
7. Intercity: TPA, *Transportation In America*, 1985, p. 6, total intercity ton-miles.
8. Single-Unit: TPA, personal communication.
9. Combination: *Ibid.*
10. Rail: AAR, *Railroad Ten-Year Trends*, 1984, Table III-E-8.
11. Air: Same as Total Domestic Certificated, block (12).
12. Total Domestic Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p. 2, Freight, Express, U.S. and Foreign Mail Revenue ton miles, all services, line 3.
13. Total Domestic Majors: *Ibid.*, p. 5, line 3.
14. Scheduled: *Ibid.*, p. 5, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
15. Freight: *Ibid.*, p. 5, line 18.
16. Other: *Ibid.*, p. 5, sum of lines 19-21
17. Nonscheduled: *Ibid.*, p. 5, sum of Civilian Freight, line 44, and Military Freight, line 45.
18. Civilian Freight: *Ibid.*, p. 5, line 44.
19. Military Freight: *Ibid.*, p. 5, line 45.
20. Total Domestic Nationals: *Ibid.*, p. 47, line 3.
21. Scheduled: *Ibid.*, p. 47, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
22. Freight: *Ibid.*, p. 47, line 18.
23. Other: *Ibid.*, p. 47, sum of lines 19-21.
24. Nonscheduled: *Ibid.*, p. 47, sum of Civilian Freight, line 44, and Military Freight, line 45.
25. Civilian Freight: *Ibid.*, p. 47, line 44.
26. Military Freight: *Ibid.*, p. 47, line 45.
27. Total Domestic Large Regionals: *Ibid.*, p. 83, line 3.
28. Scheduled: *Ibid.*, p. 83, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
29. Freight: *Ibid.*, p. 83, line 18.
30. Other: *Ibid.*, p. 83, sum of lines 19-21.
31. Nonscheduled: *Ibid.*, p. 83, sum of Civilian Freight, line 44, and Military Freight, line 45.
32. Civilian Freight: *Ibid.*, p. 83, line 44.
33. Military Freight: *Ibid.*, p. 83, line 45.
34. Total Domestic Medium Regionals: *Ibid.*, p. 113, line 3, includes international operations.
35. Scheduled: *Ibid.*, p. 113, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
36. Freight: *Ibid.*, p. 113, line 18.
37. Other: *Ibid.*, p. 113, sum of lines 19-21.
38. Nonscheduled: *Ibid.*, p. 113, sum of Civilian Freight, line 44, and Military Freight, line 45.
39. Civilian Freight: *Ibid.*, p. 113, line 44.

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Figure 5. Revenue Ton-Miles of Freight, 1983 (cont'd)

40. Military Freight: *Ibid.*, p. 113, line 45.
41. Water: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States*, Calendar Year 1983, Part 5, Section 3, Table 1, total domestic ton-miles.
42. Coastwise: *Ibid.*
43. Lakewise: *Ibid.*
44. Internal: *Ibid.*
45. Local: *Ibid.*
46. Pipeline: TPA, *Transportation In America*, 1985, p. 6, intercity ton-miles.
47. ICC-Regulated: Estimated to be 84% of total pipeline.
48. Non-Regulated: Estimated to be 16% of total pipeline.
49. Air: Same as Total International Certificated, block (50).
50. Total International Certificated: CAB, *Air Carrier Traffic Statistics*, 1983, p.3, line 3.
51. Total International Majors: *Ibid.*, p. 6, line 3.
52. Scheduled: *Ibid.*, p. 6, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
53. Freight: *Ibid.*, p. 6, line 18.
54. Other: *Ibid.*, p. 6, sum of lines 19-21.
55. Nonscheduled: *Ibid.*, p. 6, sum of Civilian Freight, line 44, and Military Freight, line 45.
56. Civilian Freight: *Ibid.*, p. 6, line 44.
57. Military Freight: *Ibid.*, p. 6, line 45.
58. Total International Nationals: *Ibid.*, p. 48, line 3.
59. Scheduled: *Ibid.*, p. 48, sum of Freight, Air Express, U.S. Mail and Foreign Mail, lines 18-21.
60. Freight: *Ibid.*, p. 48, line 18.
61. Other: *Ibid.*, p. 48, sum of lines 19-21.
62. Nonscheduled: *Ibid.*, p. 48, sum of Civilian Freight, line 44, and Military Freight, line 45.
63. Civilian Freight: *Ibid.*, p. 48, line 44.
64. Military Freight: *Ibid.*, p. 48, line 45.
65. Total International Large Regionals: *Ibid.*, p. 84, line 3.
66. Water: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States*, Calendar Year 1983, Part 5, Section 3, Table 1, total foreign ton-miles.
67. Great Lakes: *Ibid.*
68. Coastal Ports: *Ibid.*

Figure 6. Number of Vehicles, 1983

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Local Transit, Rail, and Air; Water data not available.
3. International: Includes Water; Air data included in domestic category.
4. Highway: Sum of Auto, Truck, and Bus.
5. Auto: Sum of Personal Passenger Car and Motorcycle.
6. Personal Passenger Car: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MV-1. This figure includes private and commercial automobiles (including taxi cabs) for the 50 states and the District of Columbia (number of motorized vehicles registered).
7. Taxi: Data for Taxi are included in the Personal Passenger Car category.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MV-1. This figure includes private and commercial motorcycles (number of motorized vehicles registered).
9. Truck: *Ibid.*, Table MV-9.

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Figure 6. Number of Vehicles, 1983 (cont'd)

10. Private: *Ibid.*
11. Public: *Ibid.*
12. Bus: Sum of Intercity Bus and School Bus.
13. Intercity Bus: ABA, personal communication. This figure includes operations of Class I, II, and III carriers reporting to the ICC and the Intrastate carriers.
14. Class I: *Ibid.*, p. 6, Class I carriers including Greyhound and Trailways.
15. Class II and III: Figure derived by subtracting Class I from Intercity.
16. School: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MV-10. (Total school and other non-revenue buses).
17. Local Transit: UMTA, *National Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.14, total for all modes.
18. Motor Bus: *Ibid.*
19. Trolley Bus: *Ibid.*
20. Streetcar: *Ibid.*
21. Rail Rapid: *Ibid.*
22. Commuter Rail: *Ibid.*
23. Ferryboat: *Ibid.*
24. Demand Response: *Ibid.*
25. Rail: Sum of passenger and freight.
26. Rail, Passenger: AAR, *Railroad Facts*, 1984, p. 50.
27. Rail, Freight: *Ibid*, p. 46.
28. Air: Sum of General Aviation and Total Certificated.
29. General Aviation: U.S. DOT, Federal Aviation Administration (FAA), Office of Management Systems, *General Aviation Activity and Avionics Survey*, 1984, Table 2-9.
30. Rental: *Ibid.*
31. Business: *Ibid.*, includes Business and Executive Transportation.
32. Commercial: *Ibid.*, includes Air Taxi, Commuter Carrier and Aerial Application.
33. Instructional: *Ibid.*
34. Personal: *Ibid.*
35. Other: *Ibid.*, includes Other Work.
36. Total Certificated: Includes domestic and international aircraft; sum of Major, National and Regional airlines.
37. Majors: CAB, Financial and Cost Analysis Division, personal communication.
38. Nationals: *Ibid.*
39. Regionals: *Ibid.*, includes Large and Medium Regional airlines.
40. Water: Data not available for 1983 due to changes in collection procedures.
41. Self-Propelled: *Ibid.*
42. Dry Cargo/Passenger: *Ibid.*
43. Ferries, Railroad Car: *Ibid.*
44. Tankers: *Ibid.*
45. Towboats: *Ibid.*
46. Sailing Vessels: *Ibid.*
47. Non-Self-Propelled: *Ibid.*
48. Barges/Scows: *Ibid.*
49. Tankers: *Ibid.*
50. Railroad Car Floats: *Ibid.*
51. Air: Not available, figure included in Domestic Total Certificated, block (33).

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Figure 6. Number of Vehicles, 1983 (cont'd)

52. Water: U.S. DOT/Maritime Administration, *Merchant Fleets of the World*, 1984, p. 5.
53. Government: *Ibid.*
54. Private: *Ibid.*

Figure 7. Number of Fatalities, 1983

1. Total Transportation: Includes domestic fatalities only.
2. Domestic: Sum of Highway, Rail Rapid Transit, Rail, Air, Marine and Pipeline.
3. International: Not available, Air included in domestic category.
4. Highway: Sum of Automobile, Motorcycle, Truck, Bus, Bicycle and Pedestrian, includes 500 rail/highway grade crossing fatalities.
5. Personal Passenger Car: U.S. DOT, Transportation Systems Center (TSC), *Transportation Safety Information Report*, 1984 annual summary, Chart 8.
6. Taxi: National Safety Council, *Accident Facts*, 1984, p. 56.
7. Motorcycle: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Table 6.
8. Truck: *Ibid.*
9. Light: *Ibid.*
10. Medium: U.S. DOT/NHTSA, *Fatal Accident Reporting System*, 1983, p. 75.
11. Heavy: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Table 6.
12. Other: Subtract medium figure, block (10) from 'other trucks' figure located in *Transportation Safety Information Report*, 1984 annual summary, Table 6.
13. Bus: Sum of commercial and school bus occupant fatalities.
14. Commercial Bus: U.S. DOT/NHTSA, *Fatal Accident Reporting System*, 1983, p. 79.
15. School Bus: *Ibid.*
16. Bicycle: *Ibid.*, U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual Summary, Table 6.
17. Pedestrian: *Ibid.*, motor vehicle involvement only.
18. Other: *Ibid.*, includes Occupant and Non-Occupant fatalities, does not include bus fatalities.
19. Rail Rapid Transit: *Ibid.*, Table 1.
20. Rail: *Ibid.*, Table 1, includes railroad passengers, employees, trespassers, and others killed in railroad operations. It does not include those killed in rail/highway grade crossing accidents (107).
21. Train Accident: *Ibid.*, Chart 12.
22. Non-Train Incident: *Ibid.*, Chart 13.
23. Train Incident: *Ibid.*, Chart 14.
24. Rail-Highway Grade Crossing: *Ibid.*, Table 8, includes 107 fatalities which are not reported in the railroad figure.
25. Air: Sum of General Aviation and Total Certificated.
26. General Aviation: National Transportation Safety Board (NTSB), Safety Studies and Analysis Division (SP-10), personal communication.
27. Executive: *Ibid.*
28. Aerial Application: *Ibid.*
29. Business: *Ibid.*
30. Instructional: *Ibid.*
31. Personal: *Ibid.*
32. Other: *Ibid.*
33. Total Certificated: NTSB, Office of Safety Studies Division, personal communication. Air Carriers operating under 14 CFR 121 and 14 CFR 135 (commuter air carriers and on-demand air taxis). Includes domestic and international operations.

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Figure 7. Number of Fatalities, 1983 (cont'd)

34. Air Carrier: *Ibid.*, Airlines operating under 14 CFR 121, scheduled and nonscheduled services.
35. Commuter: *Ibid.*, Air Carriers operating under 14 CFR 135.
36. Air Taxis: *Ibid.*, On-Demand Air Carriers operating under 14 CFR 135.
37. Water: Sum of Waterborne and Recreational Boating.
38. Waterborne: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Chart 38, vessel-casualty related fatalities only.
39. Recreational Boating: U.S. Coast Guard, *Boating Statistics 1983*, p. 22. This figure represents total fatalities in recreational boating.
40. Inboard: *Ibid.*, sum of inboard gasoline and diesel powered boats.
41. Outboard: *Ibid.*
42. Inboard/Outboard: *Ibid.*
43. Manual: *Ibid.*, includes boats propelled by oars and paddles.
44. Other: *Ibid.*, includes boats propelled by jet, sail, and other methods.
45. Unknown: *Ibid.*, includes all boats in which the propulsion was unknown.
46. Pipeline: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Chart 50B. This figure includes gas distribution and transmission lines (including gathering lines), and liquid transmission lines.
47. Air: Not available, figure is included in Total Certificated, block (33).
48. Water: Not available.

Figure 8. Energy Consumed in Transportation (Converted to 10^{12} Btu), 1983

1. Total Transportation: Sum of Domestic and International.
2. Domestic: Sum of Highway, Rail, Air, Water, Pipeline and Local Transit.
3. International: Includes Total Certificated; Water data not available.
4. Highway: Sum of Personal Passenger Car, Truck, and Bus.
5. Personal Passenger: Sum of Personal Passenger Car, Taxi, and Motorcycle.
6. Personal Passenger Car (includes Taxi): U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
7. Taxi: Included in Passenger Car.
8. Motorcycle: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
9. Truck: Sum of Single-Unit and Combination.
10. Single-Unit: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
11. Combination: *Ibid.*, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon).
12. Bus: Sum of Class I Intercity, School Bus and Transit Motorbus.
13. Class I Intercity: ABA, personal communication, fuel consumed, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon).
14. School Bus: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
15. Motorbus: UMTA, *National Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.10.
16. Local Transit: *Ibid.*
17. Rail: Sum of Passenger and Class I Freight.
18. Passenger: Sum of Class I Passenger and Amtrak.
19. Class I Rail Passenger: AAR, *Railroad Ten-Year Trends*, 1984, Table III-D-2, multiplied by the conversion factor of distillate fuel oil (138,700 Btu/gallon), excludes electricity.
20. Amtrak: Amtrak Mechanical Department, personal communication.

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Figure 8. Energy Consumed in Transportation (Converted to 10^{12} Btu), 1983 (cont'd)

21. Class I Rail Freight: AAR, *Railroad Ten-Year Trends*, Table III-D-2, multiplied by the conversion factor of distillate fuel oil.
22. Air: Sum of Total Certificated and General Aviation.
23. General Aviation: U.S. DOT/FAA, *General Aviation Activity and Avionics Survey*, 1983, Table 2-21. Figure derived by the addition of jet fuel (kerosene type) and aviation gasoline, converted to Btu by their respective conversion factors.
24. Total Domestic Certificated: CAB, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1983 and 1982*. Total Domestic Certificated figure converted into barrels and multiplied by the conversion factor of 5,670,000 Btu/barrel (jet fuel kerosene-type).
25. Total Domestic Majors: *Ibid.*
26. Total Domestic Nationals: *Ibid.*
27. Total Domestic Large Regionals: *Ibid.*
28. Total Domestic Medium Regionals: *Ibid.*
29. Water: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MF-24, multiplied by the conversion factor of motor gasoline (125,000 Btu/gallon).
30. Pipeline: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1984*, Table 61, converted to Btu by thermal conversion factor for natural gas, p. 260.
31. Total International Certificated: CAB, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1983 and 1982*. Total International figure converted into barrels and multiplied by the conversion factor of jet fuel kerosene-type (5,670,000 Btu/barrel).
32. Total International Majors: *Ibid.*
33. Total International Nationals: *Ibid.*
34. Total International Large Regionals: *Ibid.*
35. Total International Medium Regionals: *Ibid.*
36. Water: Not Available.

Figure 25. Price Trend of Regular Grade Gasoline Prices, 1955-1983

1955-1980: American Petroleum Institute, *Basic Petroleum Data Book*, Section VI, Table 4/4A.

1981-1983: U.S. Department of Labor, Bureau of Labor Statistics, personal communication.

Figure 26. Average Fuel Efficiency of U.S. Passenger Cars, 1955-1983

MPG: 1955-1983: U.S. DOT/FHWA, *Highway Statistics*, annual issues, Table VM-1.

Figure 31. Estimated Annual Automobile Gasoline and Oil Costs, Including Taxes, by Size and Years of Operation

1974 & 1976: U.S. DOT/FHWA, *Cost of Operating an Automobile*, 1976, 1974.

1981 & 1984: *Ibid.*, *Cost of Owning and Operating Automobiles and Vans*, 1984, 1982.

Figure 33. Principal Commodities Carried by Water, Calendar Year 1983

1983: U.S. Department of the Army, Corps of Engineers, *Waterborne Commerce of the United States*, Part 5, 1983.

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14. *Ibid.*, *Transport Statistics in the United States*, Part 2, 1983.
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17. NTSB, Safety Studies and Analysis Division, annual news release.
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21. *Ibid.*, *Transportation In America*, 1985.
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23. *Ibid.*, *Waterborne Commerce of the United States*, Part 5, Calendar Year 1983.
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26. *Ibid.*, *Proceedings of the Marine Safety Council*, January 1974.
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28. Ibid., *National Income and Product Accounts of the U.S.*, 1929-1979 Statistics.
29. *Ibid.*, *Survey of Current Business*, 1983, 1982.
30. *Ibid.*, Bureau of the Census, *Statistical Abstract of the United States*, 1985.
31. U.S. Department of Energy (DOE), Energy Information Administration, *Energy Data Reports*, Tables 1-2, 1974.
32. *Ibid.*, *Natural Gas Annual*, 1983.
33. *Ibid.*, *Statistics of Interstate Natural Gas Pipeline Companies*, 1983.
34. U.S. Department of Labor (DOL), Bureau of Statistics, *Employment and Earnings*, 1909-1978 Bulletin 1312-11, 1979.

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37. *Ibid.*, Office of Management Systems, *General Aviation Activity and Avionics Survey*, 1983, 1982.

38. *Ibid*, Federal Highway Administration (FHWA), Bureau of Motor Carrier Safety, *Accidents of Motor Carriers of Property*, 1983.

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40. *Ibid.*, Maritime Administration, *Merchant Fleets of the World*, 1984; Office of Maritime Labor and Training (MAR-250), personal communication.

41. *Ibid.*, NHTSA/NRD30, National Center for Statistics and Analysis.

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43. *Ibid., U.S. International Air Travel Statistics*, annual issues.

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45. *Ibid., 1982 Section 15 Annual Report.*

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TABLE REFERENCES

Table 1. Average Passenger Revenue Per Passenger Mile, 1973-1983

Certificated Air Carrier, Domestic Operations, Scheduled Service:

1973-1981: Civil Aeronautics Board (CAB), *Air Carrier Financial Statistics*, 1974-1982, annual issues, p. 2, lines 1, 2, and 3; *Air Carrier Traffic Statistics*, 1974-1982, annual issues, p. 4/5, lines 7, 8, and 9. To compute Total, First Class, and Coach plus economy figures, divide line 1 by line 7, line 2 by line 8, and line 3 by line 9. To compute the index for Total, divide Total figure by 1967 index of 5.64. Use the same method for First Class and Coach plus economy, however, change the 1967 index to 7.24 for First Class and 5.13 for Coach plus economy.

1982-1983: *Ibid.*, *Air Carrier Financial Statistics*, 1983, p. 1, lines 1, 2 and 3 and *Air Carrier Traffic Statistics*, 1983, p. 2, lines 7, 8 and 9; calculated using same method as above.

Class I Rail:

1973-1979: Association of American Railroads (AAR), *Statistics of Railroads of Class I in the U.S.*, 1980, p. 8, lines 2, 3, and 4 and p. 18, lines 12, 13, and 14. All Class I average passenger revenue per passenger mile data was calculated by dividing passenger revenue by passenger miles and subtracting Amtrak and Auto-Train passenger revenue and revenue passenger mile data. As of 1978, Auto-Train is no longer Class I.

1980: *Ibid.*, Operating and Traffic Statistics, 1981.

1981-1983: Transportation Policy Associates (TPA), personal communication.

Amtrak:

1973-1979: AAR, *Statistics of Railroads of Class I in the U.S.*, 1982, p. 17, passenger revenue (Acct. 102) divided by passenger mile data, abstracted from Transportation Policy Associates, Transportation in America, 1983, p. 14.

1980-1983: *Ibid.*, *Railroad Facts*, 1984, p. 61.

Class I Intercity Bus:

1973-1979: American Bus Association (ABA), *Bus Facts*, 1981, p. 12.

1980-1981: *Ibid.*, 1982, p. 7.

1982-1983: *Ibid.*, personal communication.

Consumer Price Index:

1973-1980: U.S. Department of Commerce (DOC), Bureau of Economic Analysis. *Survey of Current Business*, July issues, p. S-6.

1981-1983: *Ibid.*, July issues, p. S-5.

Table 2. Average Freight Revenue Per Ton-Mile, 1973-1983

Certificated Air Carrier, Domestic Operations, Scheduled Service:

1973-1981: CAB, *Air Carrier Financial Statistics*, 1974-1982, annual issues, p. 2, line 4; *Air Carrier Traffic Statistics*, 1974-1982, annual issues, p. 4/5, line 18. Freight revenue (Financial Statistics) divided by revenue ton-miles of freight (Traffic Statistics).

1982-1983: *Ibid.*, *Air Carrier Financial Statistics*, 1982-1983, annual issues, p. 1, line 4; *Air Carrier Traffic Statistics*, 1982-1983, annual issues, p. 2, line 18. Freight revenue (Financial Statistics) divided by revenue ton-miles of freight (Traffic Statistics).

Class I Rail:

1973-1974: Interstate Commerce Commission (ICC), *Transport Economics*, 1976, p. 14.

1975-1976: *Ibid.*, 1978, p. 11.

1977-1980: AAR, *Operating and Traffic Statistics*, 1981.

1981-1983: TPA, *Transportation in America*, 1985, p. 11.

Class I Intercity Motor Carriers of Property, Common and Contract:

1973-1982: American Trucking Association (ATA), *Financial and Operating Statistics*, Class I and II, ICC-Regulated Motor Carriers of Freight, annual issues.

1983: ICC, Bureau of Accounts, personal communication.

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Table 2. Average Freight Revenue Per Ton-Mile, 1973-1983 (cont'd)

Oil Pipelines:

1973-1974:	ICC, *Transport Economics*, 1976, p. 4.
1975-1976:	*Ibid.*, 1978, p. 11.
1977-1980:	Transportation Associates of America (TAA), *Transportation Facts and Trends*, 1981, p. 8.
1981-1983:	TPA, *Transportation in America*, 1985, p. 11.

Inland Waterway Carriers, Barge Lines Operating on Mississippi River and Tributaries:

1973-1979:	ICC, *Economic Indicators*, 1980.
1980-1983:	TPA, *Transportation in America*, 1985, p. 11.

Producer Price Index:

1973-1980:	TAA, *Transportation Facts and Trends*, 1981, p. 8.
1981-1983:	TPA, *Transportation In America*, 1985, p. 11.

Table 3. Average Passenger Fare, 1973-1983

Certificated Air Carrier, Domestic Operations, Scheduled service:

1973-1983:	CAB, *Air Carrier Financial Statistics*, annual issues, p. 1, line 3 and *Air Carrier Traffic Statistics*, annual issues, p. 2, line 16, passenger revenue (Financial Statistics) divided by revenue passenger enplanements (Traffic Statistics).

Class I Bus, Intercity:

1973-1979:	ABA, *Bus Facts*, 1981, p. 12.
1980-1981:	*Ibid.*, 1982, p. 7.
1982-1983:	*Ibid.*, personal communication.

Local Transit:

1973-1980:	American Public Transit Association (APTA), *Transit Fact Book*, 1981, Table 14.
1981-1983:	TPA, personal communication, estimated.

Class I Rail:

1973-1979:	AAR, *Statistics of Railroads of Class I in the U.S.*, 1980, p. 8, lines 19 and 20 and p. 18. The average passenger fare was calculated by dividing passenger revenue by revenue passengers carried, and subtracting Amtrak and Auto-Train passenger revenue and revenue passengers carried data. As of 1978 Auto-Train is no longer Class I.
1980-1983:	TPA, personal communication.

Amtrak:

1973-1983:	AAR, *Railroad Facts*, annual issues, p. 61.

Table 4. Total Operating Revenues, 1973-1983

Certificated Air Carriers:

1973-1979:	CAB, *Air Carrier Financial Statistics*, 1974-1980, annual issues, p. 1.
1980-1983:	*Ibid.*, 1981-1983, annual issues, p. 1.

Class I, Intercity Bus:

1973-1980:	ABA, *Bus Facts*, 1982, p. 5.
1981-1982:	*Ibid.*, personal communication.
1983:	ICC, *Transport Statistics in U.S.*, Part 2, 1983, p. 18.

Local Transit:

1973-1977:	not available.
1978-1981:	Urban Mass Transportation Association (UMTA), *1981/1982 Section 15 Annual Reports*, Tables 001.02.2 and 002.02.
1982:	Not available due to changes in Section 15 reporting procedures from fiscal year basis to calendar year basis.
1983:	UMTA, *1983 Section 15 Annual Report*, Table 2.01.2.

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Table 4. Total Operating Revenues, 1973-1983 (cont'd)

Oil Pipeline, ICC Regulated only:

1973-1976: TAA, *Transportation Facts and Trends*, 1978, p. 4.
1977-1979: *Ibid.*, 1981, p. 2.
1980-1983: TPA, *Transportation In America*, 1985, p. 4.

Gas Pipeline:

1973-1983: Transmission Companies: American Gas Association (AGA), *Gas Facts*, 1983, p. 148.
1973-1983: Distribution Companies: *Ibid.*, p. 147.

Class I Intercity Motor Carriers of Property:

1973-1979: ICC, *95th Annual Report of the ICC*, 1981, Table 8 and similar table in earlier editions.
1980-1983: *Ibid.*, *98th Annual Report of the ICC*, 1984, Appendix E, Table 6, and similar table in earlier editions.

Class I Rail:

1973-1983: AAR, *Railroad Ten-Year Trends*, 1984, Table II-A-1.

Amtrak:

1973-1982: AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p.16.
1983: *Ibid.*, *Railroad Facts*, 1984, p. 61.

Water Transport:

Classes A and B Carriers, Inland and Coastal Waterways:

1973-1979: ICC, *94th Annual Report of the ICC*, 1980, Table 10 and similar table in earlier editions.
1980-1983: TPA, *Transportation in America*, 1985, p. 10.

Maritime Carriers:

1973-1979: *Ibid.*, Table 11 and similar table in earlier editions.
1980-1983: U.S. DOT/Maritime Administration, personal communication.

Class A Freight Forwarders:

1973-1979: *Ibid.*, Table 12 and similar table in earlier editions.
1980-1983: TPA, *Transportation In America*, 1985, p. 4.

Table 5. Vehicle-Miles, 1973-1983

Air Carriers:

Certificated Domestic Operations, All services:

1973-1978: CAB, *Air Carrier Traffic Statistics*, 1974-1979, annual issues, p. 4, line (27) plus line (50).
1979: *Ibid.*, 1980, p. 5, line (27) plus line (50).
1980-1983: *Ibid.*, 1981-1983, annual issues, p. 2, line (27) plus line (50).

Total Majors, domestic operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 5, line (27) plus line (50).

Total Nationals, domestic operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 47, line (27) plus line (50).

Total Large Regionals, domestic operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 83, line (27) plus line (50).

Total Medium Regionals, domestic and international operations:

1973-1979: Not available.
1980-1983: *Ibid.*, p. 113, line (27) plus line (50).

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Table 5. Vehicle-Miles, 1973-1983 (cont'd)

General Aviation:

1973-1980: National Transportation Safety Board (NTSB), Information Systems Division (SP-10), *News Release SB 81-1*, Jan. 13, 1981, Table 13.

1981-1983: U.S. DOT/Federal Aviation Administration (FAA), *Statistical Handbook of Aviation*, figures adjusted in line with changes in total hours flown, per TPA.

Highway:

Passenger Car and Taxi:

1973-1983: U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), *Highway Statistics*, 1983, Table VM-1 and similar table in earlier editions.

Truck:

1973-1983: *Ibid.*

Commercial Bus:

1973-1983: *Ibid.*

School Bus:

1973-1983: *Ibid.*

Local Transit:

1973-1977: Not available.

1978-1981: UMTA, *1981-1982 Section 15 Annual Reports*, Tables 001.15.1 and 002.15.1 (revenue vehicle-miles).

1982: Not available due to changes in Section 15 reporting procedures from fiscal year basis to calender year basis.

1983: UMTA, *1983 Section 15 Annual Report*, Table 2.13 (revenue vehicle-miles).

Class I Rail:

Passenger Train Car:

1973-1983: APTA, personal communication.

Freight Train Car:

1973-1983: *Ibid.*

Amtrak:

1973-1978: AAR, *Statistics of Railroads of Class I in the U.S.*, 1980, p. 17.

1979-1983: Amtrak, *Amtrak is America's Railroad*, 1983, p. 28.

Table 6. Passenger-Miles, 1973-1983

Air Carrier:

Certificated:

1973-1979: CAB, *Air Carrier Traffic Statistics*, 1974-1980, annual issues, p. 4/5, sum of lines 9 and 41.

1980-1983: *Ibid.*, 1981-1983, p. 2, line 1.

Total Majors, domestic operations:

1973-1979: *Ibid.*, 1974-1980.

1980-1983: *Ibid.*, 1981-1983, annual issues, p. 5, line 1.

Total Nationals, domestic operations:

1973-1979: *Ibid.*, 1974-1980.

1980-1983: *Ibid.*, 1981-1983, annual issues, p. 47, line 1.

Total Large Regionals, domestic operations:

1973-1979: *Ibid.*, 1974-1980.

1980-1983: *Ibid.*, 1981-1983, annual issues, p. 83, line 1.

Total Medium Regionals, domestic and international operations.

1973-1979: *Ibid.*, 1974-1980.

1980-1983: *Ibid.*, 1981-1983, annual issues, p. 113, line 1.

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Table 6. Passenger-Miles, 1973-1983 (cont'd)

General Aviation:
- 1973-1983: TPA, *Transportation In America*, 1985, p. 8.

Highway:

Passenger Car and Taxi:
- 1973-1983: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1 and similar table in earlier editions. Vehicle-miles multiplied by a constant average occupancy of 2.3.

Intercity Bus:
- 1973-1980: ABA, *Bus Facts*, 1982, p. 2.
- 1981-1983: *Ibid.*, personal communication.

Class I Rail:

Commutation and Other Than Commutation:
- 1973-1979: AAR, *Statistics of Railroads of Class I in the U.S.*, 1980, p. 8 and p. 18. Amtrak and Auto-Train data (p. 18) subtracted from Class I data (p. 8).
- 1980: *Ibid., Operating & Traffic Statistics*, 1981, p. 8.
- 1981-1983: TPA, *Transportation in America*, 1985, p. 35.

Amtrak:

Commutation and Other Than Commutation:
- 1973-1979: AAR, *Statistics of Railroads of Class I in the U.S.*, 1980, p. 18.
- 1980: *Ibid., Operating & Traffic Statistics*, 1981, p. 8.
- 1981-1983: Amtrak, Marketing Department, personal communication.

Table 7. Revenue Ton-Miles of Freight, 1973-1983

Air Carrier:

Certificated:
- 1973-1979: CAB, *Air Carrier Traffic Statistics*, 1974-1980, p. 4/5, line 3.
- 1980-1983: *Ibid.*, 1981-1983, p. 2, line 3.

Oil Pipeline:
- 1973-1983: TPA, *Transportation In America*, 1985, p. 6.

Class I Rail:
- 1973-1983: AAR, *Railroad Ten-Year Trends*, 1984, Table III-E-8.

Motor Vehicles:
- 1973-1983: TPA, *Transportation In America*, 1985, p. 6.

Water Transport:

Inland Waterways, including Great Lakes:
- 1973-1983: U.S. Army, Corps of Engineers, *Waterborne Commerce of the U.S.*, Part 5, Calendar year 1983, Section I, Table 6 and similar table in earlier editions.

Total Domestic Waterways:
- 1973-1980: *Ibid.*, Part 5, Calendar year 1980, Section III, Table 3.
- 1981: *Ibid.*, Part 5, Calendar year 1981, Section III, Table 1.
- 1982-1983: *Ibid.*, Part 5, Calendar year 1982/1983, Section III, Table 2.

Table 8. Basic Intercity Mileage Within the Continental United States, 1973-1983

Railroads, All Line Haul:
- 1973-1982: AAR, *Railroad Facts*, 1984, p. 42. Data represent aggregate length of roadway of all line-haul railroads, excluding mileage of yard tracks or sidings. Jointly used track is counted only once.
- 1983: *Ibid.*, personal communication.

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Table 8. Basic Intercity Mileage Within the Continental United States, 1973-1983 (cont'd)

Oil Pipelines:

Total:

1973-1983: TPA, *Transportation in America*, 1985, p. 21.

Crude Lines and Products Lines:

1973-1975: Penn Well Publishing Co., *Oil and Gas Journal*, 1976.
1976: U.S. DOE, *Mineral Industry Surveys, Crude Oil and Product Pipelines*, Triennial, 1977, Table 1.
1977-1983: Penn Well Publishing Co., *Oil and Gas Journal*, 1984.

Gas Pipelines:

Total Pipelines; Distribution Mains, Transmission Pipelines, and Field and Gathering Lines.

1973-1983: AGA, *Gas Facts*, 1983, p. 63.

Inland Waterways:

1973-1979: American Waterway Operators, *Inland Waterborne Commerce Statistics*, 1979, and previous years, pp. 1, 2.
1980-1983: U.S. Army, Corps of Engineers, personal communication.

Highways:

1973-1975. U.S. DOT/FHWA, *Highway Statistics, Summary to 1975*, 1977, Table FM-210.
1976-1979: *Ibid.*, *Highway Statistics*, annual issues, Table FM-1/FM-2.
1980-1983: *Ibid.*, annual issues, Table HM-14.

Airways:

1973-1983: U.S. DOT/Federal Aviation Administration (FAA), FAA *Statistical Handbook of Aviation*, 1983, Table 2.1. Mileage equals sum of VHF low altitude direct and VHF jet route mileages multiplied by 1.151 to convert from nautical miles.

Table 9. Number of Vehicles, 1973-1983

Air Carrier:

1973-1983: CAB, Information Management Division, personal communication based on CAB Form 41.

General Aviation:

1973-1977: U.S. DOT/FAA, *Statistical Handbook of Aviation*, 1978, Table 8.3 and similar table in earlier editions.
1978-1983: *Ibid.*, *General Aviation Activity and Avionics Survey*, 1980-1984, Table 2-6.

Motorcycle:

1973-1983: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1 and similar table in earlier editions.

Passenger Car and Taxi:

1973-1983: *Ibid.*

Intercity Bus:

1973-1980: ABA, *Bus Facts*, 1982, p. 2.
1981-1983: *Ibid.*, personal communication.

Local Transit:

1973-1981: APTA, *Transit Fact Book*, 1981, Tables 13 and 15.
1982-1983: *Ibid.*, personal communication.

Class I Rail:

Freight Cars:

1973-1982: AAR, *Statistics of Railroads of Class I*, 1983, p. 9.
1983: *Ibid.*, Economics and Finance Department, personal communication.

Locomotives:

1973-1982: *Ibid.*, 1983, p. 8, line 5.
1983: *Ibid.*, Economics and Finance Department, personal communication.

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Table 9. Number of Vehicles, 1973-1983 (cont'd)

Passenger Cars and Pullman:

1973-1982: *Ibid.*, 1983, p. 10, line 8, minus Amtrak and Auto-Train data, p.17.
1983: *Ibid.*, Economics and Finance Department, personal communication.

Amtrak:

Passenger Cars and Pullman and Locomotives:

1973-1982: *Ibid.*, p. 17.
1983: *Ibid.*, *Railroad Facts*, 1984, p. 61.

Truck:

1973-1983: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1, and similar table in earlier editions.

Water Transport:

Total Inland Water Vessels:

1973-1983: Sum of Non-self-propelled vessels and Self-propelled vessels.

Non-self propelled vessels and Self-propelled vessels:

1973-1976: U.S. Army, Corps of Engineers, *Summary of U.S. Passenger Flag Vessels*, annual issues. Data as of Jan. 1, 1973, 1974, 1975 and 1976, respectively.
1977-1979: *Ibid.*, Data as of Oct. 1, 1977, 1978 and 1979, respectively.
1980: *Ibid.*, Data as of Dec. 31, 1980.
1981-1982: *Ibid.*, Transportation Series Summary; beginning in 1981 data are collected every 2 years and are shown in 1982 column.
1983: Data not available; collected on a 2 year basis.

Oceangoing Steam and Motor Ships:

1973-1974: U.S. DOC, *Commerce News, Merchant Marine Data Sheet*, 1973-1974.
1975: *Ibid.*, *Merchant Fleets of the World*, 1976, p. 6.
1976: *Ibid.*, *Merchant Fleets of the World*, 1977, p. 2.
1977-1978: *Ibid.*, *Merchant Fleets of the World*, 1979, 1980, p. 7.
1979: *Ibid.*, *A Statistical Analysis of the World's Merchant Fleets*, 1981.
1980: U.S. DOT, *Merchant Fleets of the World*, 1981, p. 2.
1981: *Ibid.*, Maritime Administration, MAR-371, personal communication.
1982: *Ibid.*, *Merchant Fleets of the World*, 1983, p. 4.
1983: *Ibid.*, 1984.

Table 10. Number of New Vehicles Purchased, By Mode, 1973-1983

Air Carrier:

1973-1983: Aerospace Industries Association, *1984 Aerospace Year-End Review and Forecast*, Table V.

General Aviation:

1973-1978: U.S. DOT/FAA, *Statistical Handbook of Aviation*, 1978, Table 9-2.
1979-1983: General Aviation Manufacturers Association, personal communication, data includes shipments of aircraft only.

Passenger Car and Taxi:

1973-1980: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, July issues, p. S-36/S-40.
1981-1983: *Ibid.*, July issues, p. S-32.

Motorcycle:

1973-1983: Motorcycle Industry Council, Inc., *1984 Motorcycle Statistical Annual*, p. 12.

Mopeds:

1974-1983: *Ibid.*

Bicycle:

1973-1983: Bicycle Mfg. Assoc. of America, *The 1984 Bicycle Market in Review*.

Truck:

1973-1980: U.S. DOC, Bureau of Economic Analysis, *Survey of Current Business*, July issues, p. S-36/S-40.
1981-1983: *Ibid.*, July issue, p. S-32, total of light, medium, and heavy duty.

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Table 10. Number of New Vehicles Purchased, By Mode, 1973-1983 (cont'd)

Class I, Intercity Bus:

1973-1982: ABA, personal communication.

Local Transit (New Passenger Vehicles Delivered):

1973-1981: APTA, *Transit Fact Book*, 1981, Tables 14 and 16.
1982-1983: *Ibid.*, personal communication.

Class I Rail:

Freight Cars:

1973-1982: AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 9.
1983: *Ibid.*, Economics and Finance Department, personal communication.

Locomotives:

1973-1982: *Ibid.*, p. 8, line 19.
1983: *Ibid.*, Economics and Finance Department, personal communication.

Passenger Cars and Pullman:

1973-1982: *Ibid.*, p. 10, line 10.
1983: *Ibid.*, Economics and Finance Department, personal communciation.

Amtrak:

1973-1982: *Ibid.*, p. 17.
1983: Amtrak, Government Affairs, personal communication.

Water: Merchant Vessels and Gross Tonnage:

1973-1978: U.S. DOC, *Merchant Fleets of the World*, 1978, p. 17; 1977, p. 18; 1976, p. 44; 1975, p. 31; 1974, p. 19; 1973, p. 13.
1979: *Ibid.*, Maritime Administration, personal communication, MAR-371.
1980: U.S. DOT, *Merchant Fleets of the World*, 1981, p. 26.
1981: *Ibid.*, Maritime Administration, MAR-573, personal communication.
1982: *Ibid.*, *Merchant Fleets of the World*, 1984, p. 27.
1983: *Ibid.*, 1985, p. 30.

Table 12. Number of Fatalities by Mode, 1973-1984

Motor Vehicle Traffic:

1973-1983: U.S. DOT/TSC, *Transportation Safety Information Report*, 1984 annual summary, Table 5.

Motor Carriers of Property:

1973: U.S. DOT/FHWA, Bureau of Motor Carrier Safety, *Accidents of Motor Carriers of Property*, 1978, Washington, D.C., HMC-12.
1974-1975: *Ibid.*, TSC, *Transportation Safety Information Report*, 1980 annual summary, Table 5.
1976-1983: *Ibid.*, 1984 annual summary, Table 7.

Motor Carriers of Passengers:

1973: U.S. DOT/FHWA, Bureau of Motor Carrier Safety, *Accidents of Motor Carriers of Passengers*, 1978, Washington, D.C., HMC-12.
1974-1975: *Ibid.*, TSC, *Transportation Safety Information Report*, 1980 annual summary.
1976-1983: *Ibid.*, 1984 annual summary, Table 7.

Rail-Highway Grade Crossing:

1973-1983: *Ibid.*, TSC, *Transportation Safety Information Report*, 1984 annual summary, Chart 10.

Rail:

1973-1983: *Ibid.*, 1984 annual summary, Chart 10.

Rail Rapid Transit:

1973-1976: Not available.
1977: *Ibid.*, TSC, *Transportation Safety Information Report*, 1978 annual summary, Chart 15.
1978: *Ibid.*, 1979 annual summary, Charts 15, 16, and 17.

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Table 12. Number of Fatalities by Mode, 1973-1984 (cont'd)

1979: *Ibid.*, 1980 annual summary, p. 26.
1980: *Ibid.*, 1981 annual summary, Tables 11, 12 and 13.
1981-1983: *Ibid.*, 1984 annual summary, Table 9.

U.S. Air Carriers:
1973-1983: *Ibid.*, 1984 annual summary, Chart 19.

Commuter Air Carriers:
1973-1974: Not available.
1975-1983: *Ibid.*, 1984 annual summary, Table 12.

On-Demand Air Taxi:
1973-1974: Not available.
1975-1983: *Ibid.*, 1984 annual summary, Table 13.

U.S. General Aviation:
1973-1983: *Ibid.*, 1984 annual summary, Chart 29.

Waterborne Transportation:
1973-1983: *Ibid.*, 1984 annual summary, Chart 38.

Recreational Boating:
1973-1983: *Ibid.*, 1984 annual summary, Chart 45.

Liquid Pipeline:
1973-1983: *Ibid.*, 1984 annual summary, Chart 50B.

Gas Pipeline:
1973-1983: *Ibid.*, 1984 annual summary, Chart 50B.

Hazardous Materials:
1973-1983: *Ibid.*, 1984 annual summary, Chart 53B.

Table 19. Personal Consumption Expenditures by Transportation Sector, 1973-1983

1973-1976: U.S. DOC, Bureau of Economic Analysis, *National Income and Product Accounts of the U.S.*, 1929-1979 Statistics, Table 2.4, lines 63-81.
1977-1979: *Ibid.*, *Survey of Current Business*, July 1982, Table 2.4, lines 63-81 (excluding line 67), and similar table in earlier editions
1980-1983: *Ibid.*, July 1984, Table 2.4, lines 63-81 (excluding line 67), and similar table in earlier editions.

Table 20. Personal Consumption Expenditures by Type of Product, 1973-1983

1973-1976: *Ibid.*, Bureau of Economic Analysis, *National Income and Product Accounts of the U.S.*, 1929-1979 Statistics, Table 2.4, lines 2, 11, 20, 23, 28, 44, 55, 63, 82, 98, 102, and 104.
1977-1979: *Ibid.*, *Survey of Current Business*, July 1982, Table 2.4, and similar table in earlier editions.
1980-1983: *Ibid.*, July 1984, Table 2.4, and similar table in earlier editions.

Table 21. National Income by Transportation Sector, 1973-1983

1973-1976: *Ibid.*, Bureau of Economic Analysis, *National Income and Product Tables*, 1973-1979, Table 6.3B, lines 38-45.
1977-1979: *Ibid.*, *Survey of Current Business*, July 1982, Table 6.3B, lines 38-45.
1980-1983: *Ibid.*, July 1984, Table 6.3B, lines 38-45.

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Table 22. Average Annual Earnings Per Full-Time Employee by Transportation Sector, 1973-1983

1973-1976: *Ibid.*, Bureau of Economic Analysis, *National Income and Product Accounts*, 1926-1979, Table 6.9B, lines 38-45.
1977-1979: *Ibid.*, *Survey of Current Business*, July 1982, Table 6.9B, lines 38-45.
1980-1983: *Ibid.*, July 1984, Table 6.9B, lines 38-45.

Table 23. Wages and Salaries by Transportation Sector, 1973-1983

1973-1976: *Ibid.*, Bureau of Economic Analysis, *National Income and Product Accounts*, 1929-1979, Table 6.6B, lines 38-45.
1977-1979: *Ibid.*, *Survey of Current Business*, July 1982, Table 6.6B, lines 38-45.
1980-1983: *Ibid.*, July 1984, Table 6.6B, lines 38-45.

Table 24. Employment in Transportation and Related Industries, 1973-1983

Transport Sector:

Air:
1973-1976: U.S. Department of Labor (DOL), Bureau of Labor Statistics, *Employment and Earnings, United States*, 1909-78, SIC 45.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 45.

Bus:
1973-1976: *Ibid.*, *Employment and Earnings, United States*, 1909-78, SIC 413.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 413.

Local Transport:
1973-1976: *Ibid.*, *Employment and Earnings United States*, 1909-1978, Section B-2, SIC 411.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 411.

Railroad:
1973-1976: *Ibid.*, *Employment and Earnings, United States*, 1909-78, SIC 40.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 40.

Oil Pipeline:
1973-1976: *Ibid.*, *Employment and Earnings, United States*, 1909-78, SIC 46.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 46. FERC-regulated companies employ approximately 85% of the total.

Gas Pipeline:
1973-1983: AGA, *Gas Facts*, 1983, p. 190, and similar table in earlier editions.

Taxi:
1973-1976: U.S. DOL, Bureau of Labor Statistics, *Employment and Earnings, United States*, 1909-78, SIC 412.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 412.

Trucking and Terminals:
1973-1976: *Ibid.*, *Employment and Earnings, United States*, 1909-78, SIC 421, 3.
1977-1980: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 421, 3.
1981-1983: TPA, *Transportation in America*, 1985, p. 18.

Public Warehousing:
1973-1976: *Ibid.*, *Employment and Earnings, United States*, 1909-78, SIC 422.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 422.

Water:
1973-1976: *Ibid.*, *Employment and Earnings, United States*, 1909-78, SIC 44.
1977-1983: *Ibid.*, *Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 44.

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Table 24. Employment in Transportation and Related Industries, 1973-1983 (cont'd)

Transportation Services:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 47.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 47.

Equipment Manufacturing:

Aircraft and Parts:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 372.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 372.

Motor Vehicles and Equipment:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 301 and 371, sum of motor vehicles and equipment and tires.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 301 and 371, sum of motor vehicles and equipment and tires.

Railroad Equipment:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 374.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 374.

Ships and Boat Building and Repair:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 373.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 373.

Other:
- 1973-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, sum of SIC 376 and SIC 379.

Related Industries:

Automotive and Accessory Retailers:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 551, 2 and 553.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 551, 2 and 553, sum of new and used automobile dealers and other auto and home supply stores.

Automotive Wholesalers:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 501.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 501.

Automotive Services and Garages:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 75.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 75.

Gasoline Service Stations:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 554.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 554.

Highway and Street Construction:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, SIC 161.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, 1984, SIC 161.

Petroleum:
- 1973-1976: *Ibid., Employment and Earnings, United States*, 1909-78, Section B-2, SIC 13, 291, and 50, sum of SIC 13, 291, and 4.5% of SIC 50 (to account for petroleum bulk stations and terminals.) The totals are adjusted for 56% transportation use.
- 1977-1983: *Ibid., Supplement to Employment and Earnings, Revised Establishment Data*, June 1983, sum of SIC 13, p. 6, SIC 291 and 4.5% of SIC 50. The totals are adjusted for 56% transportation use.

Other Industries:

Truckdrivers and Deliverymen:
- 1973-1979: TAA, *Transportation Facts and Trends*, July issues, p. 22/23.
- 1980-1983: TPA, *Transportation in America*, 1985, p. 18.

Table 24. Employment in Transportation and Related Industries, 1973-1983 (cont'd)

Shipping and Receiving Clerks:
- 1973-1979: TAA, *Transportation Facts and Trends*. July issues, p. 22/23.
- 1980-1983: TPA, *Transportation In America*, 1985, p. 18.

Government Employees:

U.S. DOT
- 1973-1983: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1985, Table 528 and similar table in earlier editions.

State and Local Highway:
- 1973-1983: *Ibid.*, 1985, Table 473 and similar table in earlier editions.

Post Office:
- 1973-1983: *Ibid.*, 1985, Table 473 and similar table in earlier editions. Figures based on assuming 14% of postal workers are engaged in transportation work.

Other:
- 1973-1980: *Ibid.*, 1981, Table 459 and similar table in earlier editions. Includes CAB, FMC, ICC, RRB, MARAD, and estimated percentage of USCG.
- 1981-1983: TPA, *Transportation In America*, 1985, p. 18.

Total Civilian Labor Force:
- 1973-1983: U.S. DOC, *Statistical Abstract of the U.S.*, 1985, Table 656 and similar table in earlier editions.

Table 25. National Transportation and Economic Trends, 1973-1983

Passenger-Miles:
- 1973-1983: Summation of all modes from Table 6. (This edition of NTS).

Ton Miles:
- 1973-1983: Summation of all modes from Table 7. (This edition of NTS).

Population:
- 1973-1976: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1981, Table 8.
- 1977-1983: *Ibid.*, 1984, Table 11.

Industrial Production:
- 1973-1981: *Ibid.*, Bureau of Economic Analysis, *Survey of Current Business*. July 1983, p. S-2, and similar table in earlier editions.
- 1982-1983: *Ibid.*, July 1984, p. S-1.

Gross National Product:
- 1973-1983: *Ibid.*, July 1984, Table 1.1 and similar table in earlier editions.

Table 27. Expenditures and Overseas Travel by U.S. Residents and Foreign Visitors, 1973-1983

U.S. Residents - Overseas Travelers:
- 1973: *Ibid.*, Bureau of the Census, *Statistical Abstract of the U.S.*, 1981, Table 414.
- 1974-1983: *Ibid.*, 1985, Table 399.

Average Expenditures:
- 1973-1980: *Ibid.*, Bureau of Economic Analysis, *Survey of Current Business*, 1983, Table 6 and similar table in earlier editions.
- 1981-1983: *Ibid.*, May 1984, Table 3.

Total Travel and Passenger Fare Transactions:
- 1973-1983: Sum of travel payments in foreign countries and passenger fare payments to foreign countries.

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Table 27. Expenditures and Overseas Travel by U.S. Residents and Foreign Visitors, 1973-1983 (cont'd)

Travel Payments in Foreign Countries:
- 1973: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1981, Table 414.
- 1974-1983: *Ibid.*, 1985, Table 399.

Passenger Fare Payments to Foreign Countries:
- 1973: *Ibid.*, 1981, Table 414.
- 1974-1983: *Ibid.*, 1985, Table 399.

Foreign Visitors to U.S.:
- 1973: *Ibid.*, 1981, Table 413.
- 1974-1983: *Ibid.*, 1985, Table 398.

Average Expenditures of Visitors:
- 1973-1980: *Ibid.*, Bureau of Economic Analysis, *Survey of Current Business*, 1981. Table 4, and similar table in earlier editions.
- 1981-1983: *Ibid.*, May 1984, Table 6.

Total Travel and Passenger Fare Transactions:
- 1973-1983: Sum of travel receipts and passenger fare receipts in U.S.

Travel Receipts in U.S.:
- 1973: U.S. DOC, Bureau of the Census, *Statistical Abstract of the U.S.*, 1981, Table 413.
- 1974-1983: *Ibid.*, 1985, Table 398.

Passenger Fare Receipts in U.S.:
- 1973: *Ibid.*, 1981, Table 413.
- 1974-1983: *Ibid.*, 1985, Table 398.

Table 30. Fuel Consumption by Mode of Transportation, 1973-1983

Class I Rail:

Locomotives:
- 1973-1982: Diesel Oil, AAR, *Railroad Ten-Year Trends*, 1984, Table III-D-2.
- 1973-1982: Electricity, AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 15.
- 1983: *Ibid.*, Economics and Finance Department, personal communication.
- 1973-1979: Coal, Tons, AAR, *Statistics of Railroads of Class I in the U.S.*, 1983, p. 15
- 1980-1983: *Ibid.*, *Railroad Ten-Year Trends*, 1984, Table III-D-6.

Motor Cars:
- 1973-1983: Diesel Oil, AAR, *Railroad Ten-Year Trends*, 1984, Table III-D-2.
- 1973-1983: Electricity, *Ibid.*, Table III-D-5.

Air Carriers:

Certificated Carriers, Domestic and International:
- 1973-1975: U.S. DOT/FAA, FAA *Statistical Handbook of Aviation*, 1975, Table C.27.
- 1976-1979: CAB, *Fuel Cost and Consumption, Twelve Months Ended Dec. 31, 1980 and 1979*. Total of Tables 2, 3, 4, 6 and 7 and similar tables in earlier editions.
- 1980-1983: *Ibid.*, *Twelve Months Ended Dec. 31, 1983 and 1982; 1981 and 1980*, p. 1.

General Aviation:
- 1973-1975: U.S. DOT/FAA, Information and Statistical Division, personal communication.
- 1976-1977: *Ibid.*, Office of Aviation Policy, personal communication.
- 1978-1983: *Ibid.*, *General Aviation Activity and Avionics Survey*, 1984, Table 2-21, and similar table in earlier editions.

Highway:
- 1973-1983: U.S. DOT/FHWA, *Highway Statistics*, 1983, Table VM-1 and similar table in earlier editions.

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Table 30. Fuel Consumption by Mode of Transport, 1973-1983 (cont'd)

Water Transport:

Residual and Distillate Fuel Oil:

1973-1974:	U.S. Department of the Interior (DOI), Bureau of Mines, *Mineral Industry Surveys, Fuel Oil Sales-Annual*, Sept. 17, 1976, Tables 2 and 3 and similar tables in earlier editions.
1975-1976:	U.S. DOE, *Energy Data Reports, Deliveries of Fuel Oil and Kerosene*, Tables 12 and 13.
1977-1983:	*Ibid.*, *Petroleum Supply Annual 1983*, Table 11 and similar table in earlier editions. Contains vessel bunkering data only. Converted to gallons by multiplying by 42 gallons per barrel.

Gasoline:

1973-1983:	U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MF-24 and similar table in earlier editions.

Transit:

Electricity:

1973-1977:	Not available.
1978-1981:	UMTA, *1981-1982 Section 15 Annual Reports*, Table 002.11.1. Section 15 Reporting System began in 1978, data reported on a fiscal year basis.
1982:	Data for 1982 not available due to changes in Section 15 reporting procedures from fiscal year basis to calendar year basis.
1983:	UMTA, *Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.10.

Gallons of Motor Fuel:

1973-1977:	APTA, *Transit Fact Book*, 1981, Table 17.
1978-1981:	UMTA, *Urban Mass Transportation Statistics, 1981-1982 Section 15 Annual Reports*, Table 002.11.1. Section 15 Reporting System began in 1978, data reported on a fiscal year basis.
1982:	Data for 1982 was not available due to changes in Section 15 reporting procedures from fiscal year basis to calendar year basis.
1983:	UMTA, *Urban Mass Transportation Statistics, 1983 Section 15 Annual Report*, Table 2.10.

Pipelines:

1973-1974:	AGA, *Gas Facts*, 1975, Table 53.
1975:	U.S. DOI, Bureau of Mines, *Natural Gas Annual*, 1975, Table 6.
1976:	U.S. DOE, *Energy Data Reports, Natural Gas Annual*, 1980, Table 10.
1977-1983:	*Ibid.*, 1983, Table 13, and similar table in earlier editions.

Total Non-Highway Use of Gasoline:

1973-1983:	U.S. DOT/FHWA, *Highway Statistics*, 1983, Table MF-21 and similar table in earlier editions.

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APPENDIX B
Glossary

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AIR CARRIER TERMINOLOGY

AIR CARRIER: Any carrier operating under Code of Federal Regulations, Title 14, Part 121 Includes those operators who have been issued a Certificate of Public Convenience and Necessity by the Civil Aeronautics Board, i.e., U.S. air carrier operations include Air Carriers, Commercial Operators, All Cargo Carriers, using large aircraft; Commuter Air Carriers and On-Demand Air Taxi Operators using Small Aircraft operating under 14 CFR 121 or 14 CFR 135. Commercial operators of large aircraft (over 12,500 pounds) are also classified as air carriers.

AIRCRAFT ACCIDENT: For the purpose of this report, an aircraft accident is "an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or the aircraft receives substantial damage."

AIRCRAFT OPERATION: An aircraft arrival at, or departure from, an airport with FAA airport traffic control service. There are two types of operations--local and itinerant.

1. Local operations are performed by aircraft which:
   (a) operate in the local traffic pattern or within sight of the tower;
   (b) are known to be departing for, or arriving from, flight in local practice areas located within a 20-mile radius of the control tower;
   (c) execute simulated instrument approaches or low passes at the airport.

2. Itinerant operations:

   All aircraft arrivals and departures other than local operations.

AIRCRAFT REVENUE HOURS: The airborne hours in revenue service, computed from the moment an aircraft leaves the ground until it touches the ground again.

AIRCRAFT REVENUE MILES: The miles (based on airport-to-airport distances) for each interairport hop actually completed in revenue service, whether or not performed in accordance with the scheduled pattern. For this purpose, operation to a flag stop is a hop completed even though a landing is not actually made. In cases where the interairport distances are inapplicable, aircraft miles flown are determined by multiplying the normal cruising speed for the aircraft type by the airborne hours.

ALL-CARGO CARRIER: One of a class of air carriers holding certificates of public convenience and necessity (issued by the Civil Aeronautics Board) authorizing the performance of scheduled air freight, express, and mail transportation over specified routes as well as the conduct of nonscheduled operations, which may include passengers. These operations are conducted under 14 CFR 121.

ALL OPERATIONS: Refers to all flight operations including test, training, ferry, scheduled and nonscheduled passenger and cargo service, both revenue and nonrevenue.

CERTIFICATED CARRIER: One of a class of air carriers holding certificates of public convenience and necessity issued by the CAB, authorizing the performance of scheduled air transportation over specified routes and a limited amount of nonscheduled operations. This general carrier grouping includes the all purpose carriers (i.e., the so-called passenger/cargo carriers) and the all-cargo carriers, and comprise all of the airlines certificated by the Board, except the supplemental air carriers. Certificated route air carriers are often referred to as "scheduled airlines," although they also perform nonscheduled service.

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY, "CC AND N": A certificate issued to an air carrier under Section 401 of the Federal Aviation Act, by the Civil Aeronautics Board, authorizing the carrier to engage in air transportation.

COACH: Transport service established for the carriage of passengers at special reduced passenger fares that are predicated on both the operation specifically designated aircraft space and a reduction in the quality of service regularly and ordinarily provided.

COMMERCIAL OPERATOR: A commercial operator is an air carrier certificated to engage in scheduled intrastate common carrier operations and private carriage in interstate operations. The intended interstate operations will not be in common carriage. A "CC and N" is not required of a commercial operator. These revenue operations are conducted under 14 CFR 121

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COMMUTER AIR CARRIERS: Commuter air carriers are certificated air taxi operators who perform scheduled services, as defined by the CAB as "those operators who perform, pursuant to published schedules, at least five round trips per week between two or more points, or carry mail." These operations are conducted under 14 CFR 135.

DOMESTIC OPERATIONS: Operations within and between the 50 States and the District of Columbia. Includes domestic operations of the certificated trunk carriers, Pan American, local service, helicopter, intra-Alaska, intra-Hawaii, domestic all-cargo, and other carriers; also includes transborder operations conducted on the domestic route segments of U.S. air carriers.

ECONOMY: Transport services established for the carriage of passengers at fares and quality of service below that of coach service.

FIRST-CLASS: Transport service established for the carriage of passengers moving at either standard fares or premium fares, or at reduced fares not predicated upon the operation of specifically allocated aircraft space, and for whom standard or premium quality services are provided.

FIXED-WING AIRCRAFT: Aircraft having nonrotating wings fixed to the airplane fuselage and outspread in flight.

INTERNATIONAL OPERATIONS: Operations outside the territory of the United States, including operations between the United States and foreign countries and between the United States and its territories and possessions. Includes both the combination passenger/cargo carriers and the all-cargo carriers engaged in international and territorial operations.

JET ENGINE: An engine which converts fuel and air into a fast-moving stream of hot gases which effect propulsion of the device of which the engine is a part.

JET FUEL: Includes both naphtha type and kerosene type fuels meeting standards for use in aircraft turbine engines. Although most jet fuel is used in aircraft, some is used for other purposes such as for generating electricity in gas turbines

KEROSENE-BASE JET FUEL: A quality kerosene product with an average gravity of 40.7 degrees API and 10 to 90% distillation temperatures of 217 to 261 degrees C. Used primarily as fuel for commercial turbojet and turboprop aircraft engines. It is a relatively low freezing point distillate of the kerosene type.

LARGE REGIONALS: Carrier groups with annual operating revenues of $10,000,000-$74,999,999. Included in this group are Air Illinois, Air Midwest, Air Wisconsin, Alaska International, America West, American International, Empire, Evergreen, Hawaii Express, International Air Service, Jet America, Midway, Muse, New York Air, Pacific Express, People Express, Reeve, Southern Air, Sunworld and Zantop.

MAJORS: Carrier groups with annual operating revenues of $1,000,000,000+. Included in this group are American, Braniff, Continental, Delta, Eastern, Northwest, Pan American, Republic, Trans World, United, USAir, and Western.

MEDIUM REGIONALS: Carrier groups with annual operating revenues of $0-$9,999,999 (or that operate only aircraft with 60 seats or less or 18,000 pounds maximum payload or less). Included in this group are Aerostar, Air Nevada, Air North, Air North/Nenana, All Star, Altair, American Trans Air, Arista, Arrow, Aspen, Best, Big Sky, Blue Bell, Cascade, Challenge, Colgan, Elan, Emerald, Galaxy, Global, Golden West, Great American, Gulf Air Transport, Guy-America, Imperial, Jet Charter, Jet Fleet, Kodiak, L.A.B., Mid-South, Midstate, Mississippi Valley, Munz, NewAir, Northeastern, Northern Air, Overseas, Pacific East, Peninsula, Rich, Rocky Mountain, Sea Airmotive, Sky West, South Pacific, Sun Country, T-Bird, Western Yukon, and Wright.

NAPHTHA-BASE JET FUEL: A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 10 to 90% distillation temperatures of 117 to 233 degrees C. Used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ramjet and petroleum.

NATIONALS: Carrier groups with annual operating revenues of $75,000,000-$1,000,000,000. Included in this group are Air California, Air Florida, Alaska, Aloha, Capitol, Flying Tiger/Metro Intl., Frontier, Hawaiian, Ozark, Pacific Southwest, Piedmont, Southwest, Texas International, Transamerica, Wien and World.

NONOPERATING INCOME AND EXPENSES: Income and loss of commercial ventures not part of the common carrier air transport services of the accounting entity; other revenues and expenses attributable to financing or other activities that are extraneous to and not an integral part of air transportation or its incidental services.

NONREVENUE FLIGHTS: Flights and flight stages involving training, test, technical, positioning for scheduled flights, ferry, company business, publicity and forced returns for which no remuneration is received.

NONSCHEDULED FREIGHT: Property carried in charter operations.

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NONSCHEDULED SERVICE: Revenue flights not operated in regular scheduled service, principally contract and charter operations.

OPERATING EXPENSES: Expenses incurred in the performance of air transportation. Includes direct aircraft operating expenses, ground, and indirect operating expenses.

OPERATING REVENUES: Includes revenues from the performance of air transportation and transport related activities. See "Transport Related Revenues".

OTHER TRANSPORT REVENUES: Miscellaneous revenues associated with air transportation performed by the air carrier, such as airline employees, officers and directors, or other persons, except ministers of religion who travel under reduced rated transportation; reservation cancellation fees; and other items not specified in other transport revenue accounts.

PASSENGER-MILE: One passenger transported one mile (5,280 feet). Passenger-miles are computed by summation of the products of the aircraft miles flown on each interairport flight stage multiplied by the number of passengers carried on that flight stage.

PASSENGER REVENUES: Revenues from the transportation of passengers by air.

PASSENGER SERVICE EXPENSES: Costs of activities contributing to the comfort, safety, and convenience of passengers while in flight and when flights are interrupted. Includes salaries and expenses of cabin attendants and passenger food expense.

REVENUE PASSENGER TON-MILE: One ton of revenue passenger weight (including all baggage) transported one mile (5,280 feet). The passenger weight standard for both "Domestic" and "International" operation is 200 pounds.

REVENUE PASSENGER ENPLANEMENTS: The total number of passengers boarding aircraft derived from a standard number of passenger enplanements per on-line originating passenger.

REVENUE PASSENGER LOAD FACTOR: The percent that revenue passenger-miles are of available seat-miles in revenue passenger services, representing the proportion of aircraft seating capacity that is actually sold and utilized.

REVENUE PASSENGER-MILE: One revenue passenger transported one mile (5,280 feet) in revenue service. Revenue passenger-miles are computed by summation of the products of the revenue aircraft-miles flown on each interairport flight stage multiplied by the number of passengers carried on that flight stage.

REVENUE TON-MILE: One ton of revenue traffic transported one mile (5,280 feet).

REVENUE TON-MILE OF FREIGHT: One short ton of freight transported one mile (5,280 feet). Ton-miles are computed by summation of the products of the aircraft miles flown on each interairport flight stage multiplied by the number of tons carried on that flight stage.

SCHEDULED ALL-CARGO CARRIER: One of a class of air carriers holding Certificates of Public Convenience and Necessity, issued by the CAB, authorizing the performance of scheduled air freight, express, and mail transportation over specified routes, as well as the conduct of nonscheduled operations (charter), which may include passengers.

SCHEDULED SERVICE: Transport service operated over an air carrier's certificated routes, based on published flight schedules, including extra sections and related nonrevenue flights.

SUPPLEMENTAL AIR CARRIER: One of a class of air carriers now holding certificates, issued by the CAB, authorizing them to perform passenger and cargo charter services supplementing the scheduled service of the certificated route air carriers. Supplemental air carriers are often referred to as "nonskeds," i.e., nonscheduled carriers.

TRANSPORT RELATED EXPENSES: Expenses from services related to air transportation such as in-flight sales of liquor, food and other items: ground, restaurant and food services, rental expense as lessor, interchange sales, general service sales, mutual aid, substitute service and air cargo service (other than actual air movement).

TRANSPORT RELATED REVENUES: Revenues from services related to air transportation such as enumerated above under "Transportation Related Expenses."

TRANSPORT REVENUES: Revenues from transportation by air of all classes of traffic in scheduled and nonscheduled service, including the performance of charters.

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TURBOFAN AIRCRAFT: Aircraft propelled by a turbojet engine whose thrust has been increased by the addition of a low-pressure compressor (fan). The turbofan engine can have an oversized low-pressure compressor at the front, with part of the flow by-passing the rest of the engine (front-fan or forward-fan), or it can have a separate fan driven by a turbine stage (aft-fan).

TURBOJET AIRCRAFT: Aircraft propelled by jet engines incorporating a turbine-driven air compressor to take in and compress the air for the combustion of fuel, the gases of combustion (or the heated air) being used both to rotate the turbine and to create a thrust-producing jet.

TURBOPROP AIRCRAFT: Aircraft in which the main propulsive force is supplied by a conventional propeller driven by a gas turbine. Additional propulsive force may be supplied from the discharged turbine exhaust gas.

GENERAL AVIATION TERMINOLOGY

ACTIVE AIRCRAFT: All legally registered civil aircraft which flew one or more hours.

AERIAL APPLICATION: Any use of an aircraft for work purposes which concerns the production of foods, fibers, and health control in which the aircraft is used in lieu of farm implements or ground vehicles for the particular task accomplished. This includes fire fighting operations, the distribution of chemicals or seeds in agriculture, reforestation, or insect control.

AIR-TAXI: The classification of air carriers which transports persons, property, and mail using small aircraft (under 30 seats or a maximum payload capacity of less than 7,500 pounds). An air taxi does not hold a Certificate of Public Convenience and Necessity.

AVIATION GASOLINE (AVGAS): All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D 910. Includes all refinery products within the gasoline range that are to be marketed straight or in blends as aviation gasoline without further processing (i.e., any refinery operation except mechanical blending). Also includes finished components in the gasoline range which will be used for blending or compounding into aviation gasoline.

BUSINESS: Use of an aircraft not for compensation or hire by individuals for the purposes of transportation required by business in which they are engaged.

COMMUTER AIR CARRIER: An air-taxi that performs at least five scheduled round trips per week between two or more points or carries mail.

DEMAND AIR-TAXI: Use of an aircraft operating under Federal Aviation Regulations, Part 135, passenger and cargo operations, including charter and excluding commuter air carrier.

EXECUTIVE: Any use of an aircraft by a corporation, company, or other organization for the purposes of transporting its employees and/or property not for compensation or hire, and employing professional pilots for the operation of the aircraft.

GENERAL AVIATION: That portion of civil aviation which encompasses all facets of aviation except air carriers.

INSTRUCTIONAL: Any use of an aircraft for the purpose of formal instruction with the flying instructor aboard, or with the maneuvers on the particular flight(s) specified by the flight instructor; excludes proficiency flying.

PERSONAL: Any use of an aircraft for personal purposes not associated with a business or profession, and not for hire. This includes maintenance of pilot proficiency.

RENTAL: Aircraft owned for the purpose of renting; commercial flying club, leased, and rental aircraft activity.

OTHER: Any other use of an aircraft not included in above, i.e, experimentation, R&D, testing, demonstration, government.

OTHER WORK: Any aircraft used for construction work (not included under Part 135), helicopter, hoist, towing gliders, or parachuting.

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HIGHWAY TERMINOLOGY

FEDERAL EXPENDITURES: Intergovernmental payments to the State, District of Columbia, and local governments plus direct expenditures for capital outlay, maintenance, administration, and research.

HIGHWAY TRUST FUND: This is a grant-in-aid type fund administered by the FHWA. That is, most funds for highway improvements are apportioned to States in accordance with formulas that give weight to population, area and mileage.

MUNICIPAL MILEAGE: Roads inside city, municipal district, or urban boundaries: includes extensions of the state primary system, and state secondary roads within delimited incorporated and unincorporated places, and mileage under local control; i.e., local city streets, roads, and public ways not under State control within such places.

RURAL MILEAGE: Roads outside city, municipal district, or urban boundaries.

STATE AND LOCAL EXPENDITURES: Disbursements for capital outlay, maintenance and traffic surfaces, administration and research, highway law enforcement and safety, and interest on debt.

STATE PRIMARY SYSTEM: This refers to highways that have been so officially designated by States. They encompass the principal intercounty, intercity and interstate roads of all states.

STATE SECONDARY ROADS: This mileage is reported in the tables for the States (taken from the Highway Statistics 1970 Bulletin) that have designated both a primary and secondary system.

AUTOMOBILE TERMINOLOGY

ACCIDENT: An accident is an unintended event that produces injury or damage. The word "injury" includes "fatal injury."

COMPACT-SIZE CAR: An automobile industry designation usually consisting of cars with a wheelbase between 101 and 111 inches. After 1975 these are included in the SMALL category.

FATAL ACCIDENT: A fatal accident is any motor vehicle or other road vehicle accident that results in fatal injuries to one or more persons.

INTERMEDIATE-SIZE CAR: An automobile industry designation usually consisting of cars with a wheelbase between 112 and 118 inches.

LOCAL RURAL ROADS: Streets outside urban boundaries other than principal arteries of travel.

MAIN RURAL ROADS: Streets outside urban boundaries that are generally recognized as principal arteries of travel.

MOTORCYCLE: Two-wheeled automotive vehicle having one or two saddles and sometimes a sidecar with a third supporting wheel.

PASSENGER-MILES: This figure represents the total distance traveled by all passengers in passenger cars and taxis. One passenger traveling one mile (5,280 feet) generates one passenger-mile.

REVENUES-TAXI: Fares paid by passengers riding in taxis.

STANDARD-SIZE CAR: An automobile industry designation usually consisting of cars with a wheelbase of greater than or equal to 119 inches.

SUBCOMPACT-SIZE CAR: An automobile industry designation usually consisting of cars with a wheelbase of less than or equal to 100 inches. After 1975 these are included in the SMALL category.

VEHICLE-MILES: Automobile vehicle-miles are estimated by calculating the number of gallons of gas sold from gasoline tax receipts and multiplying by the average number of miles per gallon.

VEHICLE-MILE (BY TYPE OF STREET): These figures represent the total number of miles traveled by passenger cars, taxis, and motorcycles on the different types of streets. One vehicle traveling one mile (5,280 feet) generates one vehicle-mile.

URBAN STREETS: Street within urban boundaries.

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BUS TERMINOLOGY

COMMERCIAL BUS: Any bus used to carry passengers at rates specified in tariffs; charges may be computed per passenger (as in regular route service) or per vehicle (as in charter service).

EXPENDITURES--SCHOOL BUS: This is the total expenditure for operation, maintenance, insurance, depreciation, operating taxes, licenses, and operating rents for vehicles used as school buses.

INTERCITY BUS--CLASS I: An interstate motor carrier of passengers with an average annual gross revenue of at least $1,000,000 is defined by the ICC as a Class I carrier.

INTERCITY BUS--TOTAL: This figure includes Class I, II, and III interstate carriers, all of which report to the Interstate Commerce Commission, and intrastate carriers.

MOTORBUS: Rubber-tired, self-propelled transit vehicle with fuel supply carried onboard the vehicle.

REVENUE PASSENGERS: Passengers on a commercial bus by or for whom a fare is paid.

REVENUE PASSENGER-MILES: One revenue passenger carried one mile (5,280 feet) generates one passenger-mile. The revenue passenger miles reported thus represent the total distance traveled by all bus passengers.

SCHOOL AND NONREVENUE BUS: Passengers using these are not directly charged for transportation, either on a "per passenger" or on a "per vehicle" basis.

TAXES ASSIGNABLE TO OPERATIONS: Includes the amount of federal, state, county, municipal, and other taxing district taxes which relate to motor carrier operations and property use therein (except income taxes on ordinary income).

VEHICLE-MILE: One vehicle traveling one mile (5,280 feet) generates one vehicle-mile. Thus, total vehicle-miles is the total mileage traveled by all vehicles.

TRUCK TERMINOLOGY

AVERAGE LENGTH OF HAUL (MILES): The total number of ton-miles divided by the total number of tons carried.

COMBINATION TRUCKS: Consist of a power unit (a truck tractor) and one or two trailing units (a semi-trailer). The most frequently used combination is popularly referred to as a "tractor-semitrailer" or a "tractor trailer."

GROSS VEHICLE WEIGHT (GVW): The weight of the empty vehicle plus the maximum anticipated load weight.

ICC-REGULATED CARRIER: A motor common carrier operating in interstate commerce under a grant of authority from the Interstate Commerce Commission and subject to its economic regulation.

NON-ICC-REGULATED CARRIER: A motor carrier not subject to the economic regulation of the ICC. The category includes intrastate carriers, private carriers hauling only the goods of their owners, and carriers of commodities, the transportation of which is exempt from ICC economic regulation.

OPERATING EXPENSES: This includes expenditures for equipment maintenance, supervision, wages, fuel, equipment rental, terminal operations, insurance, safety, and administrative and general functions.

OPERATING REVENUES OF CLASS I INTERCITY MOTOR CARRIERS: This term is defined by the ICC to include the five categories of revenue listed in the text.

REVENUE: The total amounts received by carriers for transportation and other services.

SINGLE-UNIT TRUCK: A motor vehicle consisting primarily of a single motorized device designed for carrying a load of property weighing 4,409 pounds or more on or in the device.

TON-MILES: The transportation of one short ton (2,000 lbs) of freight a distance of one mile (5,280 feet) generates one ton-mile.

VEHICLE-MILES: This term includes miles operated by power units upon urban streets, main rural roads, and local rural roads.

LOCAL TRANSIT TERMINOLOGY

ACCIDENTS: Incidents in which there is property damage or personal injury, involving revenue or non-revenue transit vehicles or stations. Accidents are classified as "collision," "non-collision," or "station."

COMMUTER RAIL: Typically characterized as urban passenger train service for local short distance travel between a central city and adjacent suburbs. It does not include "heavy" rail rapid transit or light rail/streetcar service. Service of a predominantly intercity nature is excluded, except where a portion of it is operated under contract to a public transit agency for commuter purposes.

DIAL-A-RIDE OR DEMAND RESPONSE VEHICLES: Rubber-tired passenger vehicles operated on city streets, propelled by gas, gasoline, or diesel engines, equipped to provide personal demand transit service, normally upon dispatch, and used exclusively for this service.

ELECTRIFIED ROADWAY (RAILROAD): Track along which a locomotive or rail motor car can receive electrical power generated at a remote location.

FERRYBOATS: Vessels for carrying passengers and/or vehicles over a body of water. The vessels generally are steam or diesel powered conventional ferry vessels. They also may be hovercraft, hydrofoils, and other high-speed vessels.

FIXED GUIDEWAY MODES: Any public mass transportation service which utilizes a separate right-of-way or rails. These modes include but are not limited to fixed rail, automated guideway transit, and exclusive facilities for buses and other high occupancy vehicles (i.e., motor buses on "exclusive" and "controlled access" rights-of-way). By statute, the fixed guideway category for Section 9 purposes also includes ferryboat and fixed catenary systems (i.e., trolley bus) which can share a right-of-way with other modes.

HEAVY RAIL: Subway-type transit vehicle railway constructed on exclusive private right-of-way with high-level platform stations; formerly known as "subway" or "elevated" (railway).

LIGHT RAIL: Streetcar, trolley car, or light surface rail operations constructed on city streets, including private right-of-way operations, typified by low platform stations, one-man operations at all times, capability for onboard fare collection, and actual onboard fare collection most of the time.

LINE MILES: (See "Miles of Directional").

MILES OF DIRECTIONAL ROADWAY: Defined as synonymous with "route miles", "line miles", and "directional route miles". The total miles over which public transportation vehicles travel while in revenue service, computed with regard to direction, but without regard to the number of traffic lanes or rail tracks existing in the right-of-way. If vehicles travel in only one direction within the right-of-way, each mile is counted once. If vehicles travel in both directions, each mile is counted twice. For example, a mile of single track over which streetcars operate in both directions represents two directional route miles. And a mile of exclusive busway on which a transit agency operates six different routes in only a single direction represents one directional route mile, regardless of the number of lanes.

MOTOR BUSES: Rubber-tired passenger vehicles operated on city streets, propelled by gas, gasoline, or diesel engines. Class A motor buses are equipped with more than 35 seats, Class B with 25 to 35 seats, and Class C with less than 25 seats.

OTHER REVENUE VEHICLES: Other modes of transit service such as cable cars, personal rapid transit systems of varying designs, monorail vehicles, inclined railway cars, etc., not covered otherwise.

OPERATING EXPENSES: For Section 9 purposes, the total of all expenses associated with operation of an individual mode by a given operator. At the required level, total operating expense is reported on line 14 of Form 301 for a single mode system, and is derived from Form 310 for a multi-mode system. Operating expenses include distributions of "joint expenses" to individual modes, and exclude "reconciling items" such as interest expenses and depreciation.

OPERATING REVENUE: Includes passenger revenue and revenue from charter and contract services.

PASSENGER MILE: A measure of service utilization, equal to one passenger traveling in a vehicle for one mile (5,280 feet). (For example, 10 passengers riding in a vehicle for two miles equates to 20 passenger miles.)

PASSENGER REVENUE: The total of all moneys paid by passengers to ride on scheduled trips. This includes single trip fares, and charges for transfers, weekly, monthly, and other unlimited-usage tickets.

PERFORMANCE INDICATORS: Representations of how well an activity, task, or function is being performed. Usually computed by relating a measure of service output or utilization to a measure of service input or cost.

AVAILABLE

RAIL RAPID TRANSIT CARS: Rail cars with motive capability, driven by electric power taken from overhead lines or third rails, configured for passenger traffic and usually operated on exclusive right-of-way.

REVENUE PASSENGERS CARRIED: The total number of transit rides from origin to destination taken by passengers. Thus, a multi-vehicle ride would be counted only once. A ride by a nonrevenue passenger would not be counted

REVENUE VEHICLE-MILES: One vehicle (bus, trolleybus, streetcar, etc.) traveling one mile (5,280 feet) while revenue passengers are on board generates one revenue vehicle-mile. The revenue vehicle-miles reported thus represent the total mileage traveled by vehicles in scheduled or unscheduled revenue-producing services.

SCHOOL BUSES: Type I and Type II school vehicles as defined in Highway Safety Program Standard No. 17, used exclusively to transport students, personnel, and equipment.

STREETCARS: Relatively lightweight passenger rail cars operating singly or in short trains or fixed rails in right-of-way that is not always separated from other traffic for much of the way. Streetcars do not necessarily have the right-of-way at grade crossings with other traffic.

TROLLEYBUSES: Rubber-tired, electrically powered passenger vehicles operated on city streets drawing power from overhead lines with trolleys.

UNLINKED PASSENGER TRIPS: The number of passengers who board public transportation vehicles. Passengers are counted each time they board a vehicle, even though more than one vehicle may be used for a single journey from origin to destination.

VEHICLE MILES: The total distance traveled by revenue vehicles, including both revenue miles and deadhead miles.

VEHICLE OPERATIONS EXPENSES: The costs associated with operating vehicles, such as operators' wages and fringe benefits, fuel, tires, and vehicle licensing.

WATER TRANSPORT TERMINOLOGY

BULK CARRIER: Carries dry cargo in bulk, stowed in cargo holds within vessel hull. Cargo is poured aboard from elevator spouts, conveyor belts or slurry pipelines. It is unloaded using grab buckets, conveyor systems or vacuum equipment. Only nine vessels, mostly converted tankships are presently eligible for domestic service. Commonly referred to as "dry bulker."

BUNKER C/NUMBER 6 FUEL OIL: A high viscosity oil used mostly by ships, industry, and large-scale heating installations. This heavy fuel requires preheating in the storage tank to permit pumping and additional preheating to permit atomizing at the burners.

CLASS A CARRIERS BY INLAND AND COASTAL WATERWAYS: A Class A carrier by water is one with an average annual operation revenue that exceeds $500,000.

CLASS B CARRIERS BY INLAND AND COASTAL WATERWAYS: A Class B carrier by water is one with an average annual operating revenue greater than $100,000 but less than $500,000.

COASTWISE TRAFFIC: Domestic traffic is coastwise when it moves over the ocean, or the Gulf of Mexico, i.e., between New Orleans and Baltimore, New York and Puerto Rico, San Francisco and Hawaii, Puerto Rico and Hawaii. Traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean, is also deemed to be coastwise. The Chesapeake Bay and Puget Sound are considered internal bodies of water rather than arms of the ocean; traffic confined to these areas is deemed to be "internal" rather than coastwise.

CONTAINERSHIP: Carries cargo in special intermodal cargo containers which are stowed below deck in specially fitted holds and stacked on deck several units high. Loading and unloading are accomplished by shoreside traveling crane or, occasionally, by shipboard gantry crane. Sometimes referred to as "lift-on/lift-off" vessel. Twenty-six are presently in domestic service.

DOMESTIC FREIGHT: All waterborne commercial movements between points in the United States, Puerto Rico and the Virgin Islands, excluding traffic with the Panama Canal Zone. Cargo moved for the military in commercial vessels is reported as ordinary commercial cargo; military cargo moved in military vessels is omitted.

DOMESTIC PASSENGER: Any person traveling on a public conveyance by water between points in the United States, Puerto Rico, and the Virgin Islands.

DRY CARGO BARGES: Large flat-bottomed, non-self-propelled vessels used to transport dry bulk materials such as coal and ore.

EXPORTS: Outbound international freight including re-export of foreign merchandise.

FREIGHTERS: General cargo carriers, full containerships, partial containerships and barge carriers.

IMPORTS: Inbound international freight.

INLAND AND COASTAL WATERWAYS

INLAND AND COASTAL CHANNELS: These terms include the Atlantic Coast Waterways, the Atlantic Intracoastal Waterway, the New York State Barge Canal System, the Gulf Coast Waterways, the Gulf Intracoastal Waterway, the Mississippi River System (including the Illinois Waterway), Pacific Coast Waterways, the Great Lakes, and all other channels (waterways) of the United States, exclusive of Alaska, that are usable for commercial navigation.

INTERNAL TRAFFIC: Traffic is internal when the entire movement between ports or landings takes place on inland waterways. The following types of movements are also termed internal: movements involving carriage on both inland waterways and waters of the Great Lakes, inland movements that cross short stretches of open waters that link inland systems; marine products, sand and gravel taken directly from beds of the oceans, the Gulf of Mexico and important arms thereof, and movements between offshore installations and inland waterways.

INTERNATIONAL (FOREIGN) FREIGHT: Movements between the United States and foreign countries and between Puerto Rico, the Virgin Islands and foreign countries. Trade between U.S. territories and possessions (i.e., Guam, Wake, American Samoa, etc.) and foreign countries is excluded. Traffic to or from the Panama Canal Zone is included.

INTERNATIONAL PASSENGER: Any person traveling on a waterborne public conveyance between the United States and foreign countries and between Puerto Rico and the Virgin Islands and foreign countries.

INTRATERRITORIAL TRAFFIC: Traffic between ports in Puerto Rico and the Virgin Islands, which are considered as a single unit.

LAKEWISE OR GREAT LAKES: These terms apply to traffic between U.S. ports on the Great Lakes system. The Great Lakes system is treated as a separate system rather than as a part of the inland system.

LOCAL: Movements of freight within the confines of a port, whether the port has only one or several arms or channels, except car-ferry and general ferry, are termed "local." The term is also applied to marine products, sand, and gravel taken directly from the Great Lakes.

MARITIME CARRIERS: Maritime carriers operate on the open sea; i.e., their operations must include a foreign or international component and may include a domestic component.

MARITIME REVENUE: Revenue received for operations in international or foreign shipping.

NON-SELF PROPELLED: Vessels not containing within themselves the means for their own propulsion.

PASSENGER/COMBINATION VESSELS: Ships with a capacity for 13 or more passengers.

PASSENGER-MILE, INTERCITY: Moving one passenger one mile on a trip between two cities generates one intercity passenger mile.

PASSENGER VESSELS: Domestic passenger service, other than short-haul ferry, is limited. However, two operators offer coastwise and river system cruises with small cruise vessels accommodating about 100 passengers each. One operator provides cruises within the Hawaiian Islands, using a refurbished trans-Atlantic passenger liner. The State of Alaska seasonally operates several large passenger/vehicle ferries between Seattle and points in southeastern Alaska, plus service between points in and around Cook Inlet and Prince William Sound.

SELF-PROPELLED TOWBOAT: A compact, shallow-draft boat with a squared bow and towing "knees" for pushing tows of barges on inland waterways.

SCOWS: Large, flat-bottomed non-self-propelled vessels used to transport sand, gravel, or refuse.

TANK BARGES: Large, flat-bottomed non-self-propelled vessels used to transport fluids such as oils.

TANKSHIP: Carries liquid cargo in bulk, stowed in cargo tanks within vessel hull. Cargo is pumped aboard by a shore terminal and unloaded using the vessel's installed pumping system. It is one of the largest and newest vessels used in domestic commerce, with sizes ranging from 16,000 to 190,000 deadweight tons. Commonly referred to as "tanker." Approximately 180 are presently in domestic service.

TON-MILE: Moving one ton one mile (5,280 feet) generates one ton-mile.

TONS OF FREIGHT HAULED: The figures for tons of freight hauled on domestic waterways include exports and imports.

TUG: A strongly built, self-propelled boat used for towing and pushing.

RAILROAD TERMINOLOGY

AMTRAK (AMERICAN RAILROAD TRACKS): Operated by the National Railroad Passenger Corporation of Washington, D.C. This rail system was created by President Nixon in 1970 and was given the responsibility for the operation of intercity, as distinct from suburban, passenger trains between points designated by the Secretary of Transportation.

AVERAGE HAUL: The average distance in miles that one ton is carried. It is computed by dividing the number of ton-miles generated by the number of tons carried to generate that number of ton-miles.

AVERAGE PASSENGER TRIP LENGTH: Calculated by dividing the number of revenue passenger miles by the number of revenue passengers carried.

CAR MILEAGE: Movement of a car one mile (5,280 feet) is one car-mile.

CLASS I RAILROAD: A railroad with an annual operating revenue of greater than $5,000,000. Effective January 1, 1976, the minimum annual operating revenue requirement was raised to $10,000,000; on January 1, 1978, the requirement was raised to $50,000,000.

COMMUTATION TICKET: A ticket intended for use by a person traveling on a daily basis, i.e., to and from work; such a ticket is typically valid for an extended time period (i.e., a week or a month); the charge for such a ticket reflects a discount from the sum of the one-way fares that would be paid by the ticket-holder for the period of validity in the absence of such a reduced-rate ticket.

FREIGHT REVENUE: Revenue from the transportation of freight and from the exercise of transit, stop-off, diversion, and reconsignment privileges, as provided for in tariffs.

LINE MILEAGE: The aggregate length of roadway of all line-haul railroads. It does not include the mileage of yard tracks or sidings, nor does it reflect the fact that a mile of railroad may include two or more parallel tracks. Jointly-used track is counted only once.

LOCOMOTIVE: Self-propelled units of equipment designed solely for moving other equipment.

LOCOMOTIVE MILEAGE: Movement of a locomotive unit one mile (5,280 feet) is one locomotive-mile.

OPERATING EXPENSES: Expenses of furnishing transportation service, including maintenance and depreciation.

OTHER REVENUE: This is a general heading that includes revenues from miscellaneous operations (i.e., dining and bar car services), income from lease of road and equipment, miscellaneous rent income, income from non-operating property, profit from separately operated properties, dividend income, interest income, income from sinking and other reserve funds, release or premium on funded debt, contributions from other companies, and other miscellaneous income.

PASSENGER REVENUE--COMMUTATION: Revenue from the sale of commutation tickets.

PASSENGER REVENUE--OTHER THAN COMMUTATION: Revenue from the transportation of paying passengers not holding commutation tickets; this classification includes basic one-way and round-trip fares, discounted fares offered for the clergy and military, special excursion fares offered to travelers meeting the requirements for eligibility for those fares, (i.e., origin/destination, time of travel, length of stay at destination), revenue from the extra charges made for occupancy of space in parlor and sleeping cars, and revenue from the transportation of corpses.

PASSENGER TRAIN CARS: Cars typically found in passenger trains include coaches, sleeping cars (formerly called Pullman cars), parlor cars, dining cars, lounge cars, baggage cars, crew dormitory cars, and observation cars.

RAIL MOTOR CARS: Self-propelled passenger rail cars which are driven by electric motors energized from an electrified roadway or by a generator driven by a diesel or gas turbine engine.

REVENUE PASSENGERS CARRIED--COMMUTATION: Number of one-way trips made by persons holding commutation tickets.

REVENUE PASSENGERS CARRIED--OTHER THAN COMMUTATION: Number of one-way trips by passengers paying their fares at other than commutation ticket rates; this excludes passengers lawfully traveling without paying.

REVENUE PASSENGER-MILE: One revenue passenger traveling one mile (5,280 feet) generates one revenue passenger-mile. The revenue passenger miles reported thus represent the total distance traveled by all railroad passengers.

REVENUE TON-MILES: The product of weight of the contents of a freight car in tons and the distance transported in miles; i.e., n tons moving m miles generate n x m revenue ton-miles.

TOTAL OPERATING REVENUES: The amount of money that carriers become entitled to receive from transportation and from operations incident thereto.

OIL PIPELINE TERMINOLOGY

AVERAGE LENGTH OF HAUL (miles): The total number of ton-miles divided by the total number of tons carried.

COKE: The residue left by petroleum which has been distilled to dryness.

CRUDE OIL: A mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities.

CRUDE OIL GATHERING LINES (PIPELINE SYSTEMS): A network of pipelines transporting crude oil from individual wells to compressor station, processing point, or main trunk pipeline.

CRUDE OIL TRUNK LINES (PIPELINE SYSTEMS): One of three types of pipeline network that is used to transport crude oil to the refineries for processing.

CRUDE RUNS: Amount of crude actually processed by the refiner for the production of petroleum products, as distinct from capacity.

DISTILLATE FUEL OIL: The lighter fuel oils distilled off during the refining process. Included are products known as ASTM grades Nos. 1 and 2 heating oils, diesel fuels, and No. 4 fuel oil. The major uses of distillate fuel oils include heating, fuel for on- and off-highway diesel engines, and railroad diesel fuel.

FERC-REGULATED PIPELINE: A pipeline company operating in interstate commerce under a grant of authorization from the Federal Energy Regulatory Commission and subject to economic regulation by the Commission. Such a pipeline company is required to report relevant statistics to the FERC.

MIDDLE DISTILLATES: A category of petroleum fuel that includes the diesel fuels burned by surface transportation carriers, as well as home heating oil.

NO. 2 DISTILLATE FUEL OIL: A petroleum distillate which meets the specifications for No. 2 heating oil and/or the specifications for diesel fuel grade No. 2.

NON-REGULATED PIPELINE: A pipeline company not operating as a common carrier in interstate commerce, hence required neither to secure a grant of operating authority from the Federal Energy Regulatory Commission nor to report to it.

OPEC: Organization of Petroleum Exporting Countries including Saudi Arabia, Iran, Venezuela, Libya, Indonesia, United Arab Emirates, Algeria, Nigeria, Ecuador, Gabon, Iraq, Kuwait, and Qatar.

OPERATING EXPENSES: Expenditures necessarily made while providing services by which operating revenue is earned

OPERATING REVENUE: Revenue from the transportation of oil and from services incidental to such transportation.

OTHER DISTILLATE FUEL OILS: All other refined petroleum products not included in any other category and which, when produced in conventional distillation operations, have a boiling range from 10% point at 167 degrees C to 90% point at 375 degrees C. Included are products known as No. 1 and No. 4 distillate fuel oils and diesel oils.

PETROLEUM: A material occurring naturally in the earth and predominantly composed of mixtures of chemical compounds of carbon and hydrogen with or without other nonmetallic elements such as sulfur, oxygen, nitrogen, etc. Petroleum may contain, or be composed of, such compounds in the gaseous, liquid, and/or solid state, depending on the nature of these compounds and the existent conditions of temperature and pressure.

PETROLEUM CONSUMPTION, ELECTRIC UTILITY SECTOR: Domestic demand for all fuel oils at electric utilities.

PETROLEUM CONSUMPTION, INDUSTRIAL SECTOR: Domestic demand for petroleum products for use by establishments engaged in processing unfinished materials into another form or product. Excludes industrial space heating.

PETROLEUM CONSUMPTION, "OTHER" SECTOR: Domestic demand for miscellaneous products and for some agricultural uses.

PETROLEUM CONSUMPTION, RESIDENTIAL AND COMMERCIAL: Domestic demand for petroleum products by private households and non-manufacturing establishments. Includes industrial space heating and road paving.

PETROLEUM CONSUMPTION, TRANSPORTATION SECTOR: Domestic demand for petroleum products for on-highway use, aircraft and vessel bunkering, and railroad use.

REFINED PRODUCT TRUNK LINES (PIPELINE SYSTEMS): One of three types of pipeline network that is used to transport refined petroleum products (i.e., gasoline, kerosene, residual oil, etc.) from the refineries to local distribution centers near large market areas.

RESIDUAL FUEL OIL: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are boiled off in refinery operations. Included are products known as ASTM grade Nos. 5 and 6 oil, heavy diesel oil, Navy Special Fuel Oil, Bunker C oil, and acid sludge and pitch used as refinery fuels. Residual fuel oil is used for the production of electric power, for heating, and for various industrial purposes.

GAS PIPELINE TERMINOLOGY

GAS TRANSMISSION COMPANY: A company which obtains most of its gas operating revenues from the operation of a gas transmission pipeline and/or from main line sales to industrial customers.

DISTRIBUTION MAINS: Generally, mains which carry or control the supply of gas from the point of supply to the sales meters.

FIELD AND GATHERING PIPELINES: A network of pipelines transporting natural gas from individual wells to a compressor station, processing point, or main trunk pipeline.

LIQUID PETROLEUM GAS (LPG): Consists of propane and butane and is usually derived from natural gas. In locations where there is no natural gas and the gasoline consumption is low, naphtha is converted to LPG by catalytic reforming.

NATURAL GAS: A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

NATURAL GAS LIQUIDS: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gas such as propane and butane are principal examples.

TRANSMISSION PIPELINE: Pipelines installed for the purpose of transmitting gas from a source of supply to one or more distribution centers, to one or more large-volume customers, or a pipeline installed to interconnect sources of supply.

AVAILABLE

ENERGY TERMINOLOGY

ANTHRACITE: A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. It is often referred to as hard coal. Includes meta-anthracite and semi-anthracite. Conforms to ASTM Specification D388 for anthracite.

ASPHALT: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products; cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

AVIATION GASOLINE, FINISHED: All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910. Excludes blending components that will be used in blending or compounding into finished aviation gasoline.

BTU--BRITISH THERMAL UNIT: The amount of energy required to raise the temperature of one pound of water 1° F at or near 39.2° F. One Btu is equivalent to about 252 IT (International Steam Table) calories. An average Btu content of fuel is a heat value per unit quantity of fuel as determined from tests of fuel samples.

COAL: A solid, brittle, more or less distinctly stratified combustible carbonaceous rock formed by partial to complete decomposition of vegetation. It varies in color from dark brown to black, is not fusible without decomposition, and is very insoluble. Coals can be ranked or divided into the following classes: (1) lignite, (2) sub-bituminous, (3) bituminous, (4) semibituminous, (5) semianthracite, and (6) anthracite.

CONDENSATE: The liquid resulting when a vapor is subjected to cooling and/or pressure reduction. Also, liquid hydrocarbons condensed from gas and oil wells.

CRUDE OIL (Including Lease Condensate): A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable.

CRUDE OIL STOCKS: Stocks of crude oil and lease condensate held at refineries, in pipeline terminals, and on leases.

DISTILLATE FUEL OIL: A general classification for one of the petroleum fractions produced in conventional distillation operations. Included are products known as No. 1 and No. 2 heating oils, diesel fuels, and No. 4 fuel oil, which conform to either ASTM Specification D396 or D975. These products are used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel), and electric power generation.

DRY NATURAL GAS PRODUCTION: Derived by subtracting extraction loss from "marketed production." It represents the amount of domestic gas production that is available to be marketed and consumed as a gas.

ENERGY EFFICIENCY: In reference to transportation, the inverse of energy intensiveness: the ratio of outputs from a process to the energy inputs; for example, passenger-miles traveled (PMT) per gallon of fuel.

FOSSIL FUELS: Any naturally occurring fuel of an organic nature such as coal, crude oil, or natural gas.

GASOHOL: A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

GASOLINE: A refined petroleum product which, by its composition, is suitable for use as a fuel in internal combustion engines.

IMPORTS: All imports of crude petroleum, natural gas liquids, and petroleum products from foreign countries and receipts from Guam, Puerto Rico, the Virgin Islands, and the Hawaiian Trade Zone. The commodities included are crude oil, unfinished oils, plant condensate, and refined petroleum products.

INVENTORIES: The amounts of crude oil, unfinished oil, petroleum products, and natural gas liquids held at refineries, at natural gas processing plants, in pipelines, at bulk terminals operated by refining and pipelines companies, and at independent bulk terminals. Crude oil held in storage on leases is also included; these stocks are known as primary stocks. Secondary stocks in those held by jobbers, dealers, service station operators, and consumers are excluded. Prior to 1975 stocks held at independent bulk terminals were classified as secondary stocks.

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JET FUEL: Includes both naphtha-type and kerosene-type jet fuel meeting standards for use in aircraft turbine engines or meeting ASTM Specification D1655. Although most jet fuel is used in aircraft, some is used for other purposes, such as fuel for turbines to produce electricity.

KEROSENE: A petroleum middle distillate having burning properties suitable for use as an illuminant when burned in wick lamps. Included are No. 1-K and No. 2-K recognized in ASTM Specification D3699 and grades of kerosene called range oil having properties similar to No. 1 fuel oil, and is used primarily in space heaters, cooking stoves, and water heaters.

LEASE CONDENSATE: A natural gas liquid recovered from gas-well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons. Generally, it is blended with crude oil for refining

LIQUEFIED GASES: Propane, propylene, butane, butylene, ethane-propane mixtures, propane-butane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Excludes ethane and ethylene.

LUBRICANTS: Substances used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Lubricants include all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include bright stock lubricants, and other lubricants, lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

MARKETED PRODUCTION: This quantity is derived. It is gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating and processing operations.

MOTOR GASOLINE, FINISHED: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines and conforming to ASTM Specification D439. Included are finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

MOTOR GASOLINE, REGULAR GRADE: Finished motor gasoline (see above) that has an antiknock designation of 2 or less for unleaded motor gasoline and 3 or less for leaded motor gasoline.

NATURAL GAS: A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

NATURAL GAS LIQUIDS: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gas such as propane and butane are principal examples.

NATURAL GAS, WET: Natural gas prior to the extraction of liquids and other miscellaneous products.

PETROLEUM: A generic term applied to oil and oil products in all forms, such as crude oil, lease condensate, unfinished oils, refined petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products.

PIPELINE: A line of pipe with pumping machinery and apparatus for conveying a liquid or gas.

PROVED RESERVES (ECONOMICALLY RECOVERABLE RESERVES): Those resources (coal, oil, natural gas) that have actually been discovered and can be produced under current economic and technological conditions.

PSI: Pounds per square inch.

REFINED PETROLEUM PRODUCTS: Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

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RESERVES: Identified deposits of minerals known to be recoverable with current technology under present economic conditions. Categories of reserves are: (1) Measured Reserves--identified resources from which an energy commodity can be economically extracted with existing technology and whose location, quality, and quantity are known for geologic evidence supported by engineering evidence; (2) Indicated Reserves--reserves based partly on specific measurements, samples, or production data, and partly on projections for a reasonable distance on geologic knowledge for which quantitative measurements are not available. Such reserves are estimated to be recoverable in the future as a result of extensions, revisions of estimates, and deeper drilling in known fields.

RESERVOIR REPRESSURING: The injection of natural gas into oil and gas reservoir formations for pressure maintenance and cycling.

RESIDUAL FUEL OIL: The topped crude of refinery operations that includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396, Navy Special fuel oil, and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and for various industrial purposes. Imports of residual fuel oil include "imported crude oil burned as fuel."

RESIDUE GAS: Natural gas from which natural gas processing plant liquid products and, in some cases, nonhydrocarbon components have been extracted.

ROAD OIL: Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

SOLVENT REFINED COAL: A coal liquefication process in which the coal is mixed with a liquid solvent, then heated and passed to a high pressure reactor where hydrogen and hydrogen sulfide are separated from the mixture. It is then filtered, the solvent is distilled for reuse, and the final product is recovered either as liquid or solid.

STILL GAS (REFINERY GAS): Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. It is used primarily as refinery fuel and petrochemical feedstock.

TRANSPORTATION TERMINOLOGY

CONSTANT DOLLARS: A series is said to be expressed in "constant dollars" when the effect of change in the purchasing power of the dollar has been removed. Usually the data are expressed in terms of dollars of some selected year or the average of some set of years.

CURRENT DOLLARS: Dollars current at the time designated or at the time the transaction listed took place. In most contexts, the same meaning would be conveyed by the simple term "dollars."

DIESEL ENGINE: An internal combustion engine in which the fuel is sprayed directly into the combustion chamber and ignited by the high temperature to which the air in the combustion chamber has been heated during the compression process. There are approximately 400 different variations in size, number of cylinders, and power output of diesel engines. The engines are relatively costly, but they operate with high efficiency combined with a long life span.

LOAD FACTOR: The ratio of actual load to full capacity.

TOTAL VEHICLE-MILES OPERATED: Sum of all passenger vehicle-miles operated in line (regular) service, special (charter) service, and nonrevenue service. When vehicles are operated in trains, each vehicle is counted separately: an eight vehicle train operating for one mile (5,280 feet) equals eight vehicle-miles.

TRANSPORTATION SECTOR: Consists of both private and public passenger and freight transportation as well as government transportation, including military operations.

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CONVERSION FACTORS

Heat Content for Various Fuels

Fuel Oils			Natural Gasoline	4,620,000	Btu/bbl
Crude	5,800,000	Btu/bbl	Petroleum Coke	6,024,000	Btu/bbl
Residual	6,287,000	Btu/bbl	Asphalt	6,636,000	Btu/bbl
Motor Gasoline	5,253,000	Btu/bbl	Wax	5,537,000	Btu/bbl
Aviation Gasoline	5,048,000	Btu/bbl	Road Oil	6,636,000	Btu/bbl
Jet Fuel (Kerosene)	5,670,000	Btu/bbl	Natural Gas		
Jet Fuel (Naphtha)	5,355,000	Btu/bbl	Liquid	3,925,000	Btu/bbl
Distillate (Diesel Oil)	5,825,000	Btu/bbl	Dry (Non-utility)	1,016	Btu/ft
Crude Petroleum	5,800,000	Btu/bbl	Coal		
Ethane	3,082,000	Btu/bbl	Anthracite	25,170,000	Btu/short ton
Still Gas	6,000,000	Btu/bbl	Bituminous and Lignite	25,070,000	Btu/short ton
Lubricants	6,065,000	Btu/bbl	Coke	26,000,000	Btu/short ton
			Electricity Consumption	3,412	Btu/kWh

Volume Conversions

From \ To	in^3	ft^3	U.S. gal	Imp. gal	liter	bbl
in^3	1	5.787×10^{-4}	4.329×10^{-3}	3.605×10^{-3}	0.01639	1.031×10^{-4}
ft^3	1728	1	7.481	6.2292	28.32	0.1781
U.S. gal	231	0.1337	1	0.8327	3.785	2.381×10^{-2}
Imp. gal	277.4	0.1606	1.201	1	4.545	2.859×10^{-2}
liter	61.02	3.531×10^{-2}	0.2642	0.2200	1	6.29×10^{-3}
bbl	9702	5.615	42	34.972	158.97	1

Mass Conversions

From \ To	lb (avoirdupois)	kg	short ton	long ton	metric ton
lb (avoirdupois)	1	0.4536	5.0×10^{-4}	4.4643×10^{-4}	4.5362×10^{-4}
kg	2.205	1	1.1023×10^{-3}	9.9425×10^{-4}	1.0×10^{-3}
short ton	2000	907.2	1	0.8929	0.9072
long ton	2240	1016	1.12	1	1.016
metric ton	2205	1000	1.102	0.9842	1

Length Conversions

From \ To	cm	in	ft	yd	m	mile	km
cm	1	0.3937	3.281×10^{-2}	1.0936×10^{-2}	1.0×10^{-2}	6.214×10^{-6}	1.0×10^{-5}
in	2.54	1	8.333×10^{-2}	2.778×10^{-2}	2.54×10^{-2}	1.578×10^{-5}	2.54×10^{-5}
ft	30.48	12	1	0.333	0.3048	1.894×10^{-4}	3.048×10^{-4}
yd	91.44	36	3	1	0.9144	5.682×10^{-4}	9.144×10^{-4}
m	100	39.37	3.281	1.0936	1	6.214×10^{-4}	1.0×10^{-3}
mile	160,934	63,360	5280	1760	1609	1	1.609
km	100,000	39,370	3281	1093.6	100	0.6214	1

Energy Conversions

From \ To	ft-lb	kg-m	hp-hr	metric hp-hr	Btu	kWh	joule
ft-lb	1	0.1383	5.0505×10^{-7}	5.12×10^{-7}	1.285×10^{-3}	3.766×10^{-7}	1.356
kg-m	7.233	1	3.653×10^{-6}	3.704×10^{-6}	9.295×10^{-3}	2.724×10^{-6}	9.80665
hp-hr	1.98×10^{6}	2.7375×10^{5}	1	1.0139	2544	0.7457	2.6845×10^{6}
metric hp-hr	1.953×10^{6}	270,000	0.9863	1	2510	0.7355	2.6848×10^{6}
Btu	778.2	107.6	3.93×10^{-4}	3.985×10^{-4}	1	2.931×10^{-4}	1055
kWh	2.655×10^{6}	3.671×10^{5}	1.341	1.3596	3412	1	3.6×10^{6}
joule	0.7376	0.10197	0.3725×10^{-6}	0.3777×10^{-6}	0.9478×10^{-3}	0.2778×10^{-6}	1

1 quad Btu = .4724 million bbl crude per day = .1724 billion barrels crude per year

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